

***United States Court of Appeals  
for the Second Circuit***



**APPENDIX**



74-1258

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IN THE  
**United States Court of Appeals**  
FOR THE SECOND CIRCUIT  
No. 74-1258

NATURAL RESOURCES DEFENSE COUNCIL, INC.,  
*Petitioner,*  
—v.—  
ENVIRONMENTAL PROTECTION AGENCY,  
*Respondent,*  
CELANESE CORPORATION, ET AL.,  
*Intervenors.*

**APPENDIX FOR PETITIONER**

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or disposing of municipal waste, including storm water runoff, or industrial waste, including waste in combined storm water and sanitary sewer systems. Any application for construction grants which includes wholly or in part such methods or systems shall, in accordance with guidelines published by the Administrator pursuant to subparagraph (C) of this paragraph, contain adequate data and analysis demonstrating such proposal to be, over the life of such works, the most cost efficient alternative to comply with sections 301 or 302 of this Act, or the requirements of section 201 of this Act.

"(C) For the purposes of subparagraph (B) of this paragraph, the Administrator shall, within one hundred and eighty days after the date of enactment of this title, publish and thereafter revise no less often than annually, guidelines for the evaluation of methods, including cost-effective analysis, described in subparagraph (B) of this paragraph.

"(3) The term 'replacement' as used in this title means those expenditures for obtaining and installing equipment, accessories, or appurtenances during the useful life of the treatment works necessary to maintain the capacity and performance for which such works are designed and constructed.

### "TITLE III—STANDARDS AND ENFORCEMENT

#### "EFFLUENT LIMITATIONS

"Sec. 301. (a) Except as in compliance with this section and sections 302, 306, 307, 318, 402, and 404 of this Act, the discharge of any pollutant by any person shall be unlawful.

"(b) In order to carry out the objective of this Act there shall be achieved—

"(1)(A) not later than July 1, 1977, effluent limitations for point sources, other than publicly owned treatment works, (i) which shall require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 304(b) of this Act, or (ii) in the case of a discharge into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, which shall require compliance with any applicable pretreatment requirements and any requirements under section 307 of this Act; and

"(B) for publicly owned treatment works in existence on July 1, 1977, or approved pursuant to section 203 of this Act prior to June 30, 1974 (for which construction must be completed within four years of approval), effluent limitations based upon secondary treatment as defined by the Administrator pursuant to section 304(d) (1) of this Act; or,

"(C) not later than July 1, 1977, any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations (under authority preserved by section 510) or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to this Act.

"(2)(A) not later than July 1, 1983, effluent limitations for categories and classes of point sources, other than publicly owned treatment works, which (i) shall require application of the best available technology economically achievable for such category or class, which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 304(b)(2) of this Act, which such effluent limitations shall require the elimination of discharges of all pollutants if the Administrator finds, on the basis of information available to him (including information developed pursuant to section 315), that such elimination is technologically and economically achievable for a category or class of point sources as determined in accordance with regulations issued by the Administrator pursuant to section 304(b)(2) of this Act, or (ii) in the case of the introduction of a pollutant into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, shall require compliance with any applicable pretreatment requirements and any other requirement under section 307 of this Act; and

"(B) not later than July 1, 1983, compliance by all publicly owned treatment works with the requirements set forth in section 201(g) (2) (A) of this Act.

"(c) The Administrator may modify the requirements of subsection (b) (2) (A) of this section with respect to any point source for which a permit application is filed after July 1, 1977, upon a showing by the owner or operator of such point source satisfactory to the Administrator that such modified requirements (1) will represent the maximum use of technology within the economic capability of the owner or operator; and (2) will result in reasonable further progress toward the elimination of the discharge of pollutants.

"(d) Any effluent limitation required by paragraph (2) of subsection (b) of this section shall be reviewed at least every five years and, if appropriate, revised pursuant to the procedure established under such paragraph.

"(e) Effluent limitations established pursuant to this section or section 302 of this Act shall be applied to all point sources of discharge of pollutants in accordance with the provisions of this Act.

"(f) Notwithstanding any other provisions of this Act it shall be unlawful to discharge any radiological, chemical, or biological warfare agent or high-level radioactive waste into the navigable waters.

#### "WATER QUALITY RELATED EFFLUENT LIMITATIONS

"Sec. 302. (a) Whenever, in the judgment of the Administrator, discharges of pollutants from a point source or group of point sources, with the application of effluent limitations required under section 301 (b) (2) of this Act, would interfere with the attainment or maintenance of that water quality in a specific portion of the navigable waters which shall assure protection of public water supplies, agricultural and industrial uses, and the protection and propagation of a balanced population of shellfish, fish and wildlife, and allow recreational activities in and on the water, effluent limitations (including alternative effluent control strategies) for such point source or sources shall be established which can reasonably be expected to contribute to the attainment or maintenance of such water quality.

"(b) (1) Prior to establishment of any effluent limitation pursuant to subsection (a) of this section, the Administrator shall issue notice of intent to establish such limitation and within ninety days of such notice hold a public hearing to determine the relationship of the economic and social costs of achieving any such limitation or limitations, including any economic or social dislocation in the affected community or communities, to the social and economic benefits to be obtained (including the attainment of the objective of this Act) and to determine whether or not such effluent limitations can be implemented with available technology or other alternative control strategies.

"(2) If a person affected by such limitation demonstrates at such hearing that (whether or not such technology or other alternative control strategies are available) there is no reasonable relationship between the economic and social costs and the benefits to be obtained (including attainment of the objective of this Act), such limitation shall not become effective and the Administrator shall adjust such limitation as it applies to such person.

"(c) The establishment of effluent limitations under this section shall not operate to delay the application of any effluent limitation established under section 301 of this Act.

#### "WATER QUALITY STANDARDS AND IMPLEMENTATION PLANS

"Sec. 303. (a) (1) In order to carry out the purpose of this Act, any water quality standard applicable to interstate waters which was adopted by any State and submitted to, and approved by, or is awaiting approval by, the Administrator pursuant to this Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, shall remain in effect unless the Administrator determined that such standard is not consistent with the applicable requirements of this Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972. If the Administrator makes such a determination he shall, within three months after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, notify the State and specify the changes needed to meet such requirements. If such changes are not adopted by the State within ninety days after the date of such notification, the Administrator shall promulgate such changes in accordance with subsection (b) of this section.

"(2) Any State which, before the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, has adopted, pursuant to its own law, water quality standards applicable to intrastate waters shall submit such standards to the Administrator within thirty days after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972. Each such standard shall remain in effect, in the same manner and to the same extent as any other water quality standard established under this Act unless the Administrator determines that such standard is inconsistent with the applicable requirements of this Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972. If the Administrator makes such a determination he shall not later than the one hundred and twentieth day after the date of submission of such standards, notify the State and specify the changes needed to meet such requirements. If such changes are not adopted by the State within ninety days after such notification, the Administrator shall promulgate such changes in accordance with subsection (b) of this section.

"(3) (A) Any State which prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972 has not adopted pursuant to its own laws water quality standards applicable to intrastate waters shall, not later than one hundred and eighty days after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, adopt and submit such standards to the Administrator.

"(B) If the Administrator determines that any such standards are consistent with the applicable requirements of this Act as in effect

immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, he shall approve such standards.

"(C) If the Administrator determines that any such standards are not consistent with the applicable requirements of this Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, he shall, not later than the ninetieth day after the date of submission of such standards, notify the State and specify the changes to meet such requirements. If such changes are not adopted by the State within ninety days after the date of notification, the Administrator shall promulgate such standards pursuant to subsection (b) of this section.

"(b)(1) The Administrator shall promptly prepare and publish proposed regulations setting forth water quality standards for a State in accordance with the applicable requirements of this Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, if—

"(A) the State fails to submit water quality standards within the times prescribed in subsection (a) of this section,

"(B) a water quality standard submitted by such State under subsection (a) of this section is determined by the Administrator not to be consistent with the applicable requirements of subsection (a) of this section.

"(2) The Administrator shall promulgate any water quality standard published in a proposed regulation not later than one hundred and ninety days after the date he publishes any such proposed standard, unless prior to such promulgation, such State has adopted a water quality standard which the Administrator determines to be in accordance with subsection (a) of this section.

"(c)(1) The Governor of a State or the State water pollution control agency of such State shall from time to time (but at least once each three year period beginning with the date of enactment of the Federal Water Pollution Control Act Amendments of 1972) hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards. Results of such review shall be made available to the Administrator.

"(2) Whenever the State revises or adopts a new standard, such revised or new standard shall be submitted to the Administrator. Such revised or new water quality standard shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses. Such standards shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this Act. Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation.

"(3) If the Administrator, within sixty days after the date of submission of the revised or new standard, determines that such standard meets the requirements of this Act, such standard shall thereafter be the water quality standard for the applicable waters of that State. If the Administrator determines that any such revised or new standard is not consistent with the applicable requirements of this Act, he shall not later than the ninetieth day after the date of submission of such standard notify the State and specify the changes to meet such requirements. If such changes are not adopted by the State within ninety days after the date of notification, the Administrator shall promulgate such standard pursuant to paragraph (4) of this subsection.

"(4) The Administrator shall promptly prepare and publish proposed regulations setting forth a revised or new water quality standard for the navigable waters involved—

"(A) if a revised or new water quality standard submitted by such State under paragraph (3) of this subsection for such waters is determined by the Administrator not to be consistent with the applicable requirements of this Act, or

"(B) in any case where the Administrator determines that a revised or new standard is necessary to meet the requirements of this Act.

The Administrator shall promulgate any revised or new standard under this paragraph not later than ninety days after he publishes such proposed standards, unless prior to such promulgation, such State has adopted a revised or new water quality standard which the Administrator determines to be in accordance with this Act.

"(d)(1)(A) Each State shall identify those waters within its boundaries for which the effluent limitations required by section 301(b)(1)(A) and section 301(b)(1)(B) are not stringent enough to implement any water quality standard applicable to such waters. The State shall establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters.

"(B) Each State shall identify those waters or parts thereof within its boundaries for which controls on thermal discharges under section 301 are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife.

"(C) Each State shall establish for the waters identified in paragraph (1)(A) of this subsection, and in accordance with the priority

ranking, the total maximum daily load, for those pollutants which the Administrator identifies under section 304(a)(2) as suitable for such calculation. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.

"(D) Each State shall estimate for the waters identified in paragraph (1)(B) of this subsection the total maximum daily thermal load required to assure protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife. Such estimates shall take into account the normal water temperatures, flow rates, seasonal variations, existing sources of heat input, and the dissipative capacity of the identified waters or parts thereof. Such estimates shall include a calculation of the maximum heat input that can be made into each such part and shall include a margin of safety which takes into account any lack of knowledge concerning the development of thermal water quality criteria for such protection and propagation in the identified waters or parts thereof.

"(2) Each State shall submit to the Administrator from time to time, with the first such submission not later than one hundred and eighty days after the date of publication of the first identification of pollutants under section 304(a)(2)(D), for his approval the waters identified and the loads established under paragraphs (1)(A), (1)(B), (1)(C), and (1)(D) of this subsection. The Administrator shall either approve or disapprove such identification and load not later than thirty days after the date of submission. If the Administrator approves such identification and load, such State shall incorporate them into its current plan under subsection (e) of this section. If the Administrator disapproves such identification and load, he shall not later than thirty days after the date of such disapproval identify such waters in such State and establish such loads for such waters as he determines necessary to implement the water quality standards applicable to such waters and upon such identification and establishment the State shall incorporate them into its current plan under subsection (e) of this section.

"(3) For the specific purpose of developing information, each State shall identify all waters within its boundaries which it has not identified under paragraph (1)(A) and (1)(B) of this subsection and estimate for such waters the total maximum daily load with seasonal variations and margins of safety, for those pollutants which the Administrator identifies under section 304(a)(2) as suitable for such calculation and for thermal discharges, at a level that would assure protection and propagation of a balanced indigenous population of fish, shellfish and wildlife.

"(e)(1) Each State shall have a continuing planning process approved under paragraph (2) of this subsection which is consistent with this Act.

"(2) Each State shall submit not later than 120 days after the date of the enactment of the Water Pollution Control Amendments of 1972 to the Administrator for his approval a proposed continuing planning process which is consistent with this Act. Not later than thirty days after the date of submission of such a process the Administrator shall either approve or disapprove such process. The Administrator shall from time to time review each State's approved planning process for the purpose of insuring that such planning process is at all times consistent with this Act. The Administrator shall not approve any State permit program under title IV of this Act for any State which does not have an approved continuing planning process under this section.

"(3) The Administrator shall approve any continuing planning process submitted to him under this section which will result in plans for all navigable waters within such State, which include, but are not limited to, the following:

"(A) effluent limitations and schedules of compliance at least as stringent as those required by section 301(b)(1), section 301(b)(2), section 306, and section 307, and at least as stringent as any requirements contained in any applicable water quality standard in effect under authority of this section;

"(B) the incorporation of all elements of any applicable area-wide waste management plans under section 208, and applicable basin plans under section 209 of this Act;

"(C) total maximum daily load for pollutants in accordance with subsection (d) of this section;

"(D) procedures for revision;

"(E) adequate authority for intergovernmental cooperation;

"(F) adequate implementation, including schedules of compliance, for revised or new water quality standards, under subsection (e) of this section;

"(G) controls over the disposition of all residual waste from any water treatment processing;

"(H) an inventory and ranking, in order of priority, of needs for construction of waste treatment works required to meet the applicable requirements of sections 301 and 302.

"(f) Nothing in this section shall be construed to affect any effluent limitation, or schedule of compliance required by any State to be

implemented prior to the dates set forth in sections 301 (b) (1) and 301 (b) (2) nor to preclude any State from requiring compliance with any effluent limitation or schedule of compliance at dates earlier than such dates.

"(g) Water quality standards relating to heat shall be consistent with the requirements of section 316 of this Act.

"(h) For the purposes of this Act the term 'water quality standards' includes thermal water quality standards.

#### "INFORMATION AND GUIDELINES"

"Sec. 304. (a) (1) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall develop and publish, within one year after the date of enactment of this title (and from time to time thereafter revise) criteria for water quality accurately reflecting the latest scientific knowledge (A) on the kind and extent of all identifiable effects on health and welfare including, but not limited to, plankton, fish, shellfish, wildlife, plant life, shorelines, beaches, esthetics, and recreation which may be expected from the presence of pollutants in any body of water, including ground water; (B) on the concentration and dispersal of pollutants, or their byproducts, through biological, physical, and chemical processes; and (C) on the effects of pollutants on biological community diversity, productivity, and stability, including information on the factors affecting rates of eutrophication and rates of organic and inorganic sedimentation for varying types of receiving waters.

"(2) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall develop and publish, within one year after the date of enactment of this title (and from time to time thereafter revise) information (A) on the factors necessary to restore and maintain the chemical, physical, and biological integrity of all navigable waters, ground waters, waters of the contiguous zone, and the oceans; (B) on the factors necessary for the protection and propagation of shellfish, fish, and wildlife for classes and categories of receiving waters and to allow recreational activities in and on the water; and (C) on the measurement and classification of water quality; and (D) for the purpose of section 303, on and the identification of pollutants suitable for maximum daily load measurement correlated with the achievement of water quality objectives.

"(3) Such criteria and information and revisions thereof shall be issued to the States and shall be published in the Federal Register and otherwise made available to the public.

"(b) For the purpose of adopting or revising effluent limitations under this Act the Administrator shall, after consultation with appropriate Federal and State agencies and other interested persons, publish within one year of enactment of this title, regulations, providing guidelines for effluent limitations, and, at least annually thereafter, revise, if appropriate, such regulations. Such regulations shall—

"(1) (A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best practicable control technology currently available for classes and categories of point sources (other than publicly owned treatment works); and

"(B) specify factors to be taken into account in determining the control measures and practices to be applicable to point sources (other than publicly owned treatment works) within such categories or classes. Factors relating to the assessment of best practicable control technology currently available to comply with subsection (b) (1) of section 301 of this Act shall include consideration of the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application, and shall also take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate;

"(2) (A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods, and other alternatives for classes and categories of point sources (other than publicly owned treatment works); and

"(B) specify factors to be taken into account in determining the best measures and practices available to comply with subsection (b) (2) of section 301 of this Act to be applicable to any point source (other than publicly owned treatment works) within such categories or classes. Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate; and

"(3) identify control measures and practices available to eliminate the discharge of pollutants from categories and classes of point sources, taking into account the cost of achieving such elimination of the discharge of pollutants.

"(c) The Administrator, after consultation, with appropriate Federal and State agencies and other interested persons, shall issue to the States and appropriate water pollution control agencies within 270 days after enactment of this title (and from time to time thereafter) information on the processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants to implement standards of performance under section 306 of this Act. Such information shall include technical and other data, including costs, as are available on alternative methods of elimination or reduction of the discharge of pollutants. Such information, and revisions thereof, shall be published in the Federal Register and otherwise shall be made available to the public.

"(d) (1) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall publish within sixty days after enactment of this title (and from time to time thereafter) information, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, on the degree of effluent reduction attainable through the application of secondary treatment.

"(2) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall publish within nine months after the date of enactment of this title (and from time to time thereafter) information on alternative waste treatment management techniques and systems available to implement section 201 of this Act.

"(e) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall issue to appropriate Federal agencies, the States, water pollution control agencies, and agencies designated under section 208 of this Act, within one year after the effective date of this subsection (and from time to time thereafter) information including (1) guidelines for identifying and evaluating the nature and extent of nonpoint sources of pollutants, and (2) processes, procedures, and methods to control pollution resulting from—

"(A) agricultural and silvicultural activities, including runoff from fields and crop and forest lands;

"(B) mining activities, including runoff and siltation from new, currently operating, and abandoned surface and underground mines;

"(C) all construction activity, including runoff from the facilities resulting from such construction;

"(D) the disposal of pollutants in wells or in subsurface excavations;

"(E) salt water intrusion resulting from reductions of fresh water flow from any cause, including extraction of ground water, irrigation, obstruction, and diversion; and

"(F) changes in the movement, flow, or circulation of any navigable waters or ground waters, including changes caused by the construction of dams, levees, channels, causeways, or flow diversion facilities.

Such information and revisions thereof shall be published in the Federal Register and otherwise made available to the public.

"(f) (1) For the purpose of assisting States in carrying out programs under section 402 of this Act, the Administrator shall publish, within one hundred and twenty days after the date of enactment of this title, and review at least annually thereafter and, if appropriate, revise guidelines for pretreatment of pollutants which he determines are not susceptible to treatment by publicly owned treatment works. Guidelines under this subsection shall be established to control and prevent the discharge into the navigable waters, the contiguous zone, or the ocean (either directly or through publicly owned treatment works) of any pollutant which interferes with, passes through, or otherwise is incompatible with such works.

"(2) When publishing guidelines under this subsection, the Administrator shall designate the category or categories of treatment works to which the guidelines shall apply.

"(g) The Administrator shall, within one hundred and eighty days from the date of enactment of this title, promulgate guidelines establishing test procedures for the analysis of pollutants that shall include the factors which must be provided in any certification pursuant to section 401 of this Act or permit application pursuant to section 402 of this Act.

"(h) The Administrator shall (1) within sixty days after the enactment of this title promulgate guidelines for the purpose of establishing uniform application forms and other minimum requirements for the acquisition of information from owners and operators of point-sources of discharge subject to any State program under section 402 of this Act, and (2) within sixty days from the date of enactment of this title promulgate guidelines establishing the minimum procedural and other elements of any State program under section 402 of this Act which shall include:

"(A) monitoring requirements;

"(B) reporting requirements (including procedures to make information available to the public);

"(C) enforcement provisions; and

"(D) funding, personnel qualifications, and manpower requirements (including a requirement that no board or body which approves permit applications or portions thereof shall include, as a member, any person who receives, or has during the previous two years received, a significant portion of his income directly or indirectly from permit holders or applicants for a permit).

"(i) The Administrator shall, within 270 days after the effective date of this subsection (and from time to time thereafter), issue such information on methods, procedures, and processes as may be appropriate to restore and enhance the quality of the Nation's publicly owned fresh water lakes.

"(j) (1) The Administrator shall, within six months from the date of enactment of this title, enter into agreements with the Secretary of Agriculture, the Secretary of the Army, and the Secretary of the Interior to provide for the maximum utilization of the appropriate programs authorized under other Federal law to be carried out by such Secretaries for the purpose of achieving and maintaining water quality through appropriate implementation of plans approved under section 208 of this Act.

"(2) The Administrator, pursuant to any agreement under paragraph (1) of this subsection is authorized to transfer to the Secretary of Agriculture, the Secretary of the Army, or the Secretary of the Interior any funds appropriated under paragraph (3) of this subsection to supplement any funds otherwise appropriated to carry out appropriate programs authorized to be carried out by such Secretaries.

"(3) There is authorized to be appropriated to carry out the provisions of this subsection, \$100,000,000 per fiscal year for the fiscal year ending June 30, 1973, and the fiscal year ending June 30, 1974.

#### "WATER QUALITY INVENTORY

"Sec. 303. (a) The Administrator, in cooperation with the States and with the assistance of appropriate Federal agencies, shall prepare a report to be submitted to the Congress on or before January 1, 1974, which shall—

"(1) describe the specific quality, during 1973, with appropriate supplemental descriptions as shall be required to take into account seasonal, tidal, and other variations, of all navigable waters and the waters of the contiguous zone;

"(2) include an inventory of all point sources of discharge (based on a qualitative and quantitative analysis of discharges) of pollutants, into all navigable waters and the waters of the contiguous zone; and

"(3) identify specifically those navigable waters, the quality of which—

"(A) is adequate to provide for the protection and propagation of a balanced population of shellfish, fish, and wildlife and allow recreational activities in and on the water;

"(B) can reasonably be expected to attain such level by 1977 or 1983; and

"(C) can reasonably be expected to attain such level by any later date.

"(b) (1) Each State shall prepare and submit to the Administrator by January 1, 1975, and shall bring up to date each year thereafter, a report which shall include—

"(A) a description of the water quality of all navigable waters in such State during the preceding year, with appropriate supplemental descriptions as shall be required to take into account seasonal, tidal, and other variations, correlated with the quality of water required by the objective of this Act (as identified by the Administrator pursuant to criteria published under section 304(a) of this Act) and the water quality described in subparagraph (B) of this paragraph;

"(B) an analysis of the extent to which all navigable waters of such State provide for the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allow recreational activities in and on the water;

"(C) an analysis of the extent to which the elimination of the discharge of pollutants and a level of water quality which provides for the protection and propagation of a balanced population of shellfish, fish, and wildlife and allows recreational activities in and on the water, have been or will be achieved by the requirements of this Act, together with recommendations as to additional action necessary to achieve such objectives and for what waters such additional action is necessary;

"(D) an estimate of (i) the environmental impact, (ii) the economic and social costs necessary to achieve the objective of this Act in such State, (iii) the economic and social benefits of such achievement, and (iv) an estimate of the date of such achievement; and

"(E) a description of the nature and extent of nonpoint sources of pollutants, and recommendations as to the programs which must be undertaken to control each category of such sources, including an estimate of the costs of implementing such programs.

"(2) The Administrator shall transmit such State reports, together with an analysis thereof, to Congress on or before October 1, 1975, and annually thereafter.

#### "NATIONAL STANDARDS OF PERFORMANCE

"Sec. 306. (a) For purposes of this section:

"(1) The term 'standard of performance' means a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

"(2) The term 'new source' means any source, the construction of which is commenced after the publication of proposed regulations prescribing a standard of performance under this section which will be applicable to such source, if such standard is thereafter promulgated in accordance with this section.

"(3) The term 'source' means any building, structure, facility, or installation from which there is or may be the discharge of pollutants.

"(4) The term 'owner or operator' means any person who owns, leases, operates, controls, or supervises a source.

"(5) The term 'construction' means any placement, assembly, or installation of facilities or equipment (including contractual obligations to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises.

"(b) (1) (A) The Administrator shall, within ninety days after the date of enactment of this title publish (and from time to time thereafter shall revise) a list of categories of sources, which shall, at the minimum, include:

"pulp and paper mills;

"paperboard, builders paper and board mills;

"meat product and rendering processing;

"dairy product processing;

"grain mills;

"canned and preserved fruits and vegetables processing;

"canned and preserved seafood processing;

"sugar processing;

"textile mills;

"cement manufacturing;

"feedlots;

"electroplating;

"organic chemicals manufacturing;

"inorganic chemicals manufacturing;

"plastic and synthetic materials manufacturing;

"soap and detergent manufacturing;

"fertilizer manufacturing;

"petroleum refining;

"iron and steel manufacturing;

"nonferrous metals manufacturing;

"phosphate manufacturing;

"steam electric powerplants;

"ferroalloy manufacturing;

"leather tanning and finishing;

"glass and asbestos manufacturing;

"rubber processing; and

"timber products processing.

"(B) As soon as practicable, but in no case more than one year, after a category of sources is included in a list under subparagraph (A) of this paragraph, the Administrator shall propose and publish regulations establishing Federal standards of performance for new sources within such category. The Administrator shall afford interested persons an opportunity for written comment on such proposed regulations. After considering such comments, he shall promulgate, within one hundred and twenty days after publication of such proposed regulations, such standards with such adjustments as he deems appropriate. The Administrator shall, from time to time, as technology and alternatives change, revise such standards following the procedure required by this subsection for promulgation of such standards. Standards of performance, or revisions thereof, shall become effective upon promulgation. In establishing or revising Federal standards of performance for new sources under this section, the Administrator shall take into consideration the cost of achieving such effluent reduction, and any non-water quality environmental impact and energy requirements.

"(2) The Administrator may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing such standards and shall consider the type of process employed (including whether batch or continuous).

"(3) The provisions of this section shall apply to any new source owned or operated by the United States.

"(c) Each State may develop and submit to the Administrator a procedure under State law for applying and enforcing standards of performance for new sources located in such State. If the Administrator finds that the procedure and the law of any State require the

application and enforcement of standards of performance to at least the same extent as required by this section, such State is authorized to apply and enforce such standards of performance (except with respect to new sources owned or operated by the United States).

"(d) Notwithstanding any other provision of this Act, any point source the construction of which is commenced after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972 and which is so constructed as to meet all applicable standards of performance shall not be subject to any more stringent standard of performance during a ten-year period beginning on the date of completion of such construction or during the period of depreciation or amortization of such facility for the purposes of section 167 or 169 (or both) of the Internal Revenue Code of 1954, whichever period ends first.

"(e) After the effective date of standards of performance promulgated under this section, it shall be unlawful for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source.

#### "TOXIC AND PRETREATMENT EFFLUENT STANDARDS

"Sec. 307. (a) (1) The Administrator shall, within ninety days after the date of enactment of this title, publish (and from time to time thereafter revise) a list which includes any toxic pollutant or combination of such pollutants for which an effluent standard (which may include a prohibition of the discharge of such pollutants or combination of such pollutants) will be established under this section. The Administrator in publishing such list shall take into account the toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature and extent of the effect of the toxic pollutant on such organisms.

"(2) Within one hundred and eighty days after the date of publication of any list, or revision thereof, containing toxic pollutants or combination of pollutants under paragraph (1) of this subsection, the Administrator, in accordance with section 553 of title 5 of the United States Code, shall publish a proposed effluent standard (or a prohibition) for such pollutant or combination of pollutants which shall take into account the toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature and extent of the effect of the toxic pollutant on such organisms, and he shall publish a notice for a public hearing on such proposed standard to be held within thirty days. As soon as possible after such hearing, but not later than six months after publication of the proposed effluent standard (or prohibition), unless the Administrator finds, on the record, that a modification of such proposed standard (or prohibition) is justified based upon a preponderance of evidence adduced at such hearings, such standard (or prohibition) shall be promulgated.

"(3) If after a public hearing the Administrator finds that a modification of such proposed standard (or prohibition) is justified, a revised effluent standard (or prohibition) for such pollutant or combination of pollutants shall be promulgated immediately. Such standard (or prohibition) shall be reviewed and, if appropriate, revised at least every three years.

"(4) Any effluent standard promulgated under this section shall be at that level which the Administrator determines provides an ample margin of safety.

"(5) When proposing or promulgating any effluent standard (or prohibition) under this section, the Administrator shall designate the category or categories of sources to which the effluent standard (or prohibition) shall apply. Any disposal of dredged material may be included in such a category of sources after consultation with the Secretary of the Army.

"(6) Any effluent standard (or prohibition) established pursuant to this section shall take effect on such date or dates as specified in the order promulgating such standard, but in no case more than one year from the date of such promulgation.

"(7) Prior to publishing any regulations pursuant to this section the Administrator shall, to the maximum extent practicable within the time provided, consult with appropriate advisory committees, States, independent experts, and Federal departments and agencies.

"(b) (1) The Administrator shall, within one hundred and eighty days after the date of enactment of this title and from time to time thereafter, publish proposed regulations establishing pretreatment standards for introduction of pollutants into treatment works (as defined in section 212 of this Act) which are publicly owned for those pollutants which are determined not to be susceptible to treatment by such treatment works or which would interfere with the operation of such treatment works. Not later than ninety days after such publication, and after opportunity for public hearing, the Administrator shall promulgate such pretreatment standards. Pretreatment standards under this subsection shall specify a time for compliance not to exceed three years from the date of promulgation and shall be established to prevent the discharge of any pollutant through treatment works (as defined in section 212 of this Act) which are publicly owned, which pollutant interferes with, passes through, or otherwise is incompatible with such works.

"(2) The Administrator shall, from time to time, as control technology, processes, operating methods, or other alternatives change, revise such standards following the procedure established by this subsection for promulgation of such standards.

"(3) When proposing or promulgating any pretreatment standard under this section, the Administrator shall designate the category or categories of sources to which such standard shall apply.

"(4) Nothing in this subsection shall affect any pretreatment requirement established by any State or local law not in conflict with any pretreatment standard established under this subsection.

"(c) In order to insure that any source introducing pollutants into a publicly owned treatment works, which source would be a new source subject to section 306 if it were to discharge pollutants, will not cause a violation of the effluent limitations established for any such treatment works, the Administrator shall promulgate pretreatment standards for the category of such sources simultaneously with the promulgation of standards of performance under section 306 for the equivalent category of new sources. Such pretreatment standards shall prevent the discharge of any pollutant into such treatment works, which pollutant may interfere with, pass through, or otherwise be incompatible with such works.

"(d) After the effective date of any effluent standard or prohibition or pretreatment standard promulgated under this section, it shall be unlawful for any owner or operator of any source to operate any source in violation of any such effluent standard or prohibition or pretreatment standard.

#### "INSPECTIONS, MONITORING AND ENTRY

"Sec. 308. (a) Whenever required to carry out the objective of this Act, including but not limited to (1) developing or assisting in the development of any effluent limitation, or other limitation, prohibition, or effluent standard, pretreatment standard, or standard of performance under this Act; (2) determining whether any person is in violation of any such effluent limitation, or other limitation, prohibition or effluent standard, pretreatment standard, or standard of performance; (3) any requirement established under this section; or (4) carrying out sections 305, 311, 402, and 504 of this Act—

"(A) the Administrator shall require the owner or operator of any point source to (i) establish and maintain such records, (ii) make such reports, (iii) install, use, and maintain such monitoring equipment or methods (including where appropriate, biological monitoring methods), (iv) sample such effluents (in accordance with such methods, at such locations, at such intervals, and in such manner as the Administrator shall prescribe), and (v) provide such other information as he may reasonably require; and

"(B) the Administrator or his authorized representative, upon presentation of his credentials—

"(i) shall have a right of entry to, upon, or through any premises in which an effluent source is located or in which any records required to be maintained under clause (A) of this subsection are located, and

"(ii) may at reasonable times have access to and copy any records, inspect any monitoring equipment or method required under clause (A), and sample any effluents which the owner or operator of such source is required to sample under such clause.

"(b) Any records, reports, or information obtained under this section (1) shall, in the case of effluent data, be related to any applicable effluent limitations, toxic, pretreatment, or new source performance standards, and (2) shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof (other than effluent data), to which the Administrator has access under this section, if made public would divulge methods or processes entitled to protection as trade secrets of such person, the Administrator shall consider such record, report, or information, or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18 of the United States Code, except that such record, report, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act or when relevant in any proceeding under this Act.

"(c) Each State may develop and submit to the Administrator procedures under State law for inspection, monitoring, and entry with respect to point sources located in such State. If the Administrator finds that the procedures and the law of any State relating to inspection, monitoring, and entry are applicable to at least the same extent as those required by this section, such State is authorized to apply and enforce its procedures for inspection, monitoring, and entry with respect to point sources located in such State (except with respect to point sources owned or operated by the United States).

#### "FEDERAL ENFORCEMENT

"Sec. 309. (a) (1) Whenever, on the basis of any information available to him, the Administrator finds that any person is in violation of any condition or limitation which implements section 301, 302, 306, 307, or 308 of this Act in a permit issued by a State under an approved

permit program under section 402 of this Act, he shall proceed under his authority in paragraph (3) of this subsection or he shall notify the person in alleged violation and such State of such finding. If beyond the thirtieth day after the Administrator's notification the State has not commenced appropriate enforcement action, the Administrator shall issue an order requiring such person to comply with such condition or limitation or shall bring a civil action in accordance with subsection (b) of this section.

"(2) Whenever, on the basis of information available to him, the Administrator finds that violations of permit conditions or limitations as set forth in paragraph (1) of this subsection are so widespread that such violations appear to result from a failure of the State to enforce such permit conditions or limitations effectively, he shall so notify the State. If the Administrator finds such failure extends beyond the thirtieth day after such notice, he shall give public notice of such finding. During the period beginning with such public notice and ending when such State satisfies the Administrator that it will enforce such conditions and limitations (hereafter referred to in this section as the period of 'federally assumed enforcement'), the Administrator shall enforce any permit condition or limitation with respect to any person—

"(A) by issuing an order to comply with such condition or limitation, or

"(B) by bringing a civil action under subsection (b) of this section.

"(3) Whenever on the basis of any information available to him the Administrator finds that any person is in violation of section 301, 302, 306, 307, or 308 of this Act, or is in violation of any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act by him or by a State, he shall issue an order requiring such person to comply with such section or requirements, or he shall bring a civil action in accordance with subsection (b) of this section.

"(4) A copy of any order issued under this subsection shall be sent immediately by the Administrator to the State in which the violation occurs and other affected States. Any order issued under this subsection shall be by personal service and shall state with reasonable specificity the nature of the violation, specify a time for compliance, not to exceed thirty days, which the Administrator determines is reasonable, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements. In any case in which an order under this subsection (or notice to a violator under paragraph (1) of this subsection) is issued to a corporation, a copy of such order (or notice) shall be served on any appropriate corporate officers. An order issued under this subsection relating to a violation of section 303 of this Act shall not take effect until the person to whom it is issued has had an opportunity to confer with the Administrator, concerning the alleged violation.

"(b) The Administrator is authorized to commence a civil action for appropriate relief, including a permanent or temporary injunction, for any violation for which he is authorized to issue a compliance order under subsection (a) of this section. Any action under this subsection may be brought in the district court of the United States for the district in which the defendant is located or resides or is doing business, and such court shall have jurisdiction to restrain such violation and to require compliance. Notice of the commencement of such action shall be given immediately to the appropriate State.

"(c) (1) Any person who willfully or negligently violates section 301, 302, 306, 307, or 308 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act by the Administrator or by a State, shall be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or by both. If the conviction is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two years, or by both.

"(2) Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Act or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Act, shall upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than six months, or by both.

"(3) For the purposes of this subsection, the term 'person' shall mean, in addition to the definition contained in section 502(5) of this Act, any responsible corporate officer.

"(d) Any person who violates section 301, 302, 306, 307, or 308 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act by the Administrator, or by a State, and any person who violates any order issued by the Administrator under subsection (a) of this section, shall be subject to a civil penalty not to exceed \$10,000 per day of such violation.

"(e) Whenever a municipality is a party to a civil action brought by the United States under this section, the State in which such municipality is located shall be joined as a party. Such State shall be liable

for payment of any judgment, or any expenses incurred as a result of complying with any judgment, entered against the municipality in such action to the extent that the laws of that State prevent the municipality from raising revenues needed to comply with such judgment.

#### "INTERNATIONAL POLLUTION ABATEMENT

"SEC. 310. (a) Whenever the Administrator, upon receipts of reports, surveys, or studies from any duly constituted international agency, has reason to believe that pollution is occurring which endangers the health or welfare of persons in a foreign country, and the Secretary of State requests him to abate such pollution, he shall give formal notification thereof to the State water pollution control agency of the State or States in which such discharge or discharges originate and to the appropriate interstate agency, if any. He shall also promptly call such a hearing, if he believes that such pollution is occurring in sufficient quantity to warrant such action, and if such foreign country has given the United States essentially the same rights with respect to the prevention and control of pollution occurring in that country as is given that country by this subsection. The Administrator, through the Secretary of State, shall invite the foreign country which may be adversely affected by the pollution to attend and participate in the hearing, and the representative of such country shall, for the purpose of the hearing and any further proceeding resulting from such hearing, have all the rights of a State water pollution control agency. Nothing in this subsection shall be construed to modify, amend, repeal, or otherwise affect the provisions of the 1909 Boundary Waters Treaty between Canada and the United States or the Water Utilization Treaty of 1944 between Mexico and the United States (59 Stat. 1219), relative to the control and abatement of pollution in waters covered by those treaties.

"(b) The calling of a hearing under this section shall not be construed by the courts, the Administrator, or any person as limiting, modifying, or otherwise affecting the functions and responsibilities of the Administrator under this section to establish and enforce water quality requirements under this Act.

"(c) The Administrator shall publish in the Federal Register a notice of a public hearing before a hearing board of five or more persons appointed by the Administrator. A majority of the members of the board and the chairman who shall be designated by the Administrator shall not be officers or employees of Federal, State, or local governments. On the basis of the evidence presented at such hearing, the board shall within sixty days after completion of the hearing make findings of fact as to whether or not such pollution is occurring and shall thereupon by decision, incorporating its findings therein, make such recommendations to abate the pollution as may be appropriate and shall transmit such decision and the record of the hearings to the Administrator. All such decisions shall be public. Upon receipt of such decision, the Administrator shall promptly implement the board's decision in accordance with the provisions of this Act.

"(d) In connection with any hearing called under this subsection, the board is authorized to require any person whose alleged activities result in discharges causing or contributing to pollution to file with it in such forms as it may prescribe, a report based on existing data, furnishing such information as may reasonably be required as to the character, kind, and quantity of such discharges and the use of facilities or other means to prevent or reduce such discharges by the person filing such report. Such report shall be made under oath or otherwise, as the board may prescribe, and shall be filed with the board within such reasonable period as it may prescribe, unless additional time is granted by it. Upon a showing satisfactory to the board by the person filing such report that such report or portion thereof (other than effluent data), to which the Administrator has access under this section, if made public would divulge trade secrets or secret processes of such person, the board shall consider such report or portion thereof confidential for the purposes of section 1905 of title 18 of the United States Code. If any person required to file any report under this paragraph shall fail to do so within the time fixed by the board for filing the same, and such failure shall continue for thirty days after notice of such default, such person shall forfeit to the United States the sum of \$1,000 for each and every day of the continuance of such failure, which forfeiture shall be payable into the Treasury of the United States, and shall be recoverable in a civil suit in the name of the United States in the district court of the United States where such person has his principal office or in any district in which he does business. The Administrator may upon application therefor remit or mitigate any forfeiture provided for under this subsection.

"(e) Board members, other than officers or employees of Federal, State, or local governments, shall be for each day (including travel-time) during which they are performing board business, entitled to receive compensation at a rate fixed by the Administrator but not in excess of the maximum rate of pay for grade GS-18, as provided in the General Schedule under section 5332 of title 5 of the United States Code, and shall, notwithstanding the limitations of sections 5703 and 5704 of title 5 of the United States Code, be fully reimbursed for travel, subsistence, and related expenses.

or permit a certification and otherwise meets the requirements of this section.

"(b) Nothing in this section shall be construed to limit the authority of any department or agency pursuant to any other provision of law to require compliance with any applicable water quality requirements. The Administrator shall, upon the request of any Federal department or agency, or State or interstate agency, or applicant, provide, for the purpose of this section, any relevant information on applicable effluent limitations, or other limitations, standards, regulations, or requirements, or water quality criteria, and shall, when requested by any such department or agency or State or interstate agency, or applicant, comment on any methods to comply with such limitations, standards, regulations, requirements, or criteria.

"(c) In order to implement the provisions of this section, the Secretary of the Army, acting through the Chief of Engineers, is authorized, if he deems it to be in the public interest, to permit the use of spoil disposal areas under his jurisdiction by Federal licensees or permittees, and to make an appropriate charge for such use. Moneys received from such licensees or permittees shall be deposited in the Treasury as miscellaneous receipts.

"(d) Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 301 or 302 of this Act, standard of performance under section 306 of this Act, or prohibition, effluent standard, or pretreatment standard under section 307 of this Act, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section.

#### "NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

"Sec. 402. (a) (1) Except as provided in sections 318 and 404 of this Act, the Administrator may, after opportunity for public hearing, issue a permit for the discharge of any pollutant, or combination of pollutants, notwithstanding section 301 (a), upon condition that such discharge will meet either all applicable requirements under sections 301, 302, 306, 307, 308, and 403 of this Act, or prior to the taking of necessary implementing actions relating to all such requirements, such conditions as the Administrator determines are necessary to carry out the provisions of this Act.

"(2) The Administrator shall prescribe conditions for such permits to assure compliance with the requirements of paragraph (1) of this subsection, including conditions on data and information collection, reporting, and such other requirements as he deems appropriate.

"(3) The permit program of the Administrator under paragraph (1) of this subsection, and permits issued thereunder, shall be subject to the same terms, conditions, and requirements as apply to a State permit program and permits issued thereunder under subsection (b) of this section.

"(4) All permits for discharges into the navigable waters issued pursuant to section 13 of the Act of March 3, 1899, shall be deemed to be permits issued under this title, and permits issued under this title shall be deemed to be permits issued under section 13 of the Act of March 3, 1899, and shall continue in force and effect for their term unless revoked, modified, or suspended in accordance with the provisions of this Act.

"(5) No permit for a discharge into the navigable waters shall be issued under section 13 of the Act of March 3, 1899, after the date of enactment of this title. Each application for a permit under section 13 of the Act of March 3, 1899, pending on the date of enactment of this Act shall be deemed to be an application for a permit under this section. The Administrator shall authorize a State, which he determines has the capability of administering a permit program which will carry out the objective of this Act, to issue permits for discharges into the navigable waters within the jurisdiction of such State. The Administrator may exercise the authority granted him by the preceding sentence only during the period which begins on the date of enactment of this Act and ends either on the ninetieth day after the date of the first promulgation of guidelines required by section 304 (h) (2) of this Act, or the date of approval by the Administrator of a permit program for such State under subsection (b) of this section, whichever date first occurs, and no such authorization to a State shall extend beyond the last day of such period. Each such permit shall be subject to such conditions as the Administrator determines are necessary to carry out the provisions of this Act. No such permit shall issue if the Administrator objects to such issuance.

"(b) At any time after the promulgation of the guidelines required by subsection (h) (2) of section 304 of this Act, the Governor of each State desiring to administer its own permit program for discharges into navigable waters within its jurisdiction may submit to the Administrator a full and complete description of the program it proposes to establish and administer under State law or under an interstate compact. In addition, such State shall submit a statement from the attorney general (or the attorney for those State water pollution control agencies which have independent legal counsel), or from the

chief legal officer in the case of an interstate agency, that the laws of such State, or the interstate compact, as the case may be, provide adequate authority to carry out the described program. The Administrator shall approve each such submitted program unless he determines that adequate authority does not exist:

"(1) To issue permits which—

"(A) apply, and insure compliance with, any applicable requirements of sections 301, 302, 306, 307, and 403;

"(B) are for fixed terms not exceeding five years; and

"(C) can be terminated or modified for cause including, but not limited to, the following:

"(i) violation of any condition of the permit;

"(ii) obtaining a permit by misrepresentation, or failure to disclose fully all relevant facts;

"(iii) change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

"(D) control the disposal of pollutants into wells;

"(2) (A) To issue permits which apply, and insure compliance with, all applicable requirements of section 308 of this Act, or

"(B) To inspect, monitor, enter, and require reports to at least the same extent as required in section 308 of this Act;

"(3) To insure that the public, and any other State the waters of which may be affected, receive notice of each application for a permit and to provide an opportunity for public hearing before a ruling on each such application;

"(4) To insure that the Administrator receives notice of each application (including a copy thereof) for a permit;

"(5) To insure that any State (other than the permitting State), whose waters may be affected by the issuance of a permit may submit written recommendations to the permitting State (and the Administrator) with respect to any permit application and, if any part of such written recommendations are not accepted by the permitting State, that the permitting State will notify such affected State (and the Administrator) in writing of its failure to so accept such recommendations together with its reasons for so doing;

"(6) To insure that no permit will be issued if, in the judgment of the Secretary of the Army acting through the Chief of Engineers, after consultation with the Secretary of the department in which the Coast Guard is operating, anchorage and navigation of any of the navigable waters would be substantially impaired thereby;

"(7) To abate violations of the permit or the permit program, including civil and criminal penalties and other ways and means of enforcement;

"(8) To insure that any permit for a discharge from a publicly owned treatment works includes conditions to require adequate notice to the permitting agency of (A) new introductions into such works of pollutants from any source which would be a new source as defined in section 306 if such source were discharging pollutants, (B) new introductions of pollutants into such works from a source which would be subject to section 301 if it were discharging such pollutants, or (C) a substantial change in volume or character of pollutants being introduced into such works by a source introducing pollutants into such works at the time of issuance of the permit. Such notice shall include information on the quality and quantity of effluent to be introduced into such treatment works and any anticipated impact of such change in the quantity or quality of effluent to be discharged from such publicly owned treatment works; and

"(9) To insure that any industrial user of any publicly owned treatment works will comply with sections 204(b), 307, and 308.

"(c) (1) Not later than ninety days after the date on which a State has submitted a program (or revision thereof) pursuant to subsection (b) of this section, the Administrator shall suspend the issuance of permits under subsection (a) of this section as to those navigable waters subject to such program unless he determines that the State permit program does not meet the requirements of subsection (b) of this section or does not conform to the guidelines issued under section 304(h) (2) of this Act. If the Administrator so determines, he shall notify the State of any revisions or modifications necessary to conform to such requirements or guidelines.

"(2) Any State permit program under this section shall at all times be in accordance with this section and guidelines promulgated pursuant to section 304(h) (2) of this Act.

"(3) Whenever the Administrator determines after public hearing that a State is not administering a program approved under this section in accordance with requirements of this section, he shall so notify the State and, if appropriate corrective action is not taken within a reasonable time, not to exceed ninety days, the Administrator shall withdraw approval of such program. The Administrator shall not withdraw approval of any such program unless he shall first have notified the State, and made public, in writing, the reasons for such withdrawal.

"(d) (1) Each State shall transmit to the Administrator a copy of each permit application received by such State and provide notice to the Administrator of every action related to the consideration of such permit application, including each permit proposed to be issued by such State.

"(2) No permit shall issue (A) if the Administrator within ninety days of the date of his notification under subsection (b) (5) of this section objects in writing to the issuance of such permit, or (B) if the Administrator within ninety days of the date of transmittal of the proposed permit by the State objects in writing to the issuance of such permit as being outside the guidelines and requirements of this Act.

"(3) The Administrator may, as to any permit application, waive paragraph (2) of this subsection.

"(e) In accordance with guidelines promulgated pursuant to subsection (h) (2) of section 304 of this Act, the Administrator is authorized to waive the requirements of subsection (d) of this section at the time he approves a program pursuant to subsection (b) of this section for any category (including any class, type, or size within such category) of point sources within the State submitting such program.

"(f) The Administrator shall promulgate regulations establishing categories of point sources which he determines shall not be subject to the requirements of subsection (d) of this section in any State with a program approved pursuant to subsection (b) of this section. The Administrator may distinguish among classes, types, and sizes within any category of point sources.

"(g) Any permit issued under this section for the discharge of pollutants into the navigable waters from a vessel or other floating craft shall be subject to any applicable regulations promulgated by the Secretary of the department in which the Coast Guard is operating, establishing specifications for safe transportation, handling, carriage, storage, and stowage of pollutants.

"(h) In the event any condition of a permit for discharges from a treatment works (as defined in section 212 of this Act) which is publicly owned is violated, a State with a program approved under subsection (b) of this section or the Administrator, where no State program is approved, may proceed in a court of competent jurisdiction to restrict or prohibit the introduction of any pollutant into such treatment works by a source not utilizing such treatment works prior to the finding that such condition was violated.

"(i) Nothing in this section shall be construed to limit the authority of the Administrator to take action pursuant to section 309 of this Act.

"(j) A copy of each permit application and each permit issued under this section shall be available to the public. Such permit application or permit, or portion thereof, shall further be available on request for the purpose of reproduction.

"(k) Compliance with a permit issued pursuant to this section shall be deemed compliance, for purposes of sections 309 and 505, with sections 301, 302, 306, 307, and 403, except any standard imposed under section 307 for a toxic pollutant injurious to human health. Until December 31, 1974, in any case where a permit for discharge has been applied for pursuant to this section, but final administrative disposition of such application has not been made, such discharge shall not be a violation of (1) section 301, 306, or 402 of this Act, or (2) section 13 of the Act of March 3, 1899, unless the Administrator or other plaintiff proves that final administrative disposition of such application has not been made because of the failure of the applicant to furnish information reasonably required or requested in order to process the application. For the 180-day period beginning on the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, in the case of any point source discharging any pollutant or combination of pollutants immediately prior to such date of enactment which source is not subject to section 13 of the Act of March 3, 1899, the discharge by such source shall not be a violation of this Act if such a source applies for a permit for discharge pursuant to this section within such 180-day period.

#### "OCEAN DISCHARGE CRITERIA

"SEC. 403. (a) No permit under section 402 of this Act for a discharge into the territorial sea, the waters of the contiguous zone, or the oceans shall be issued, after promulgation of guidelines established under subsection (c) of this section, except in compliance with such guidelines. Prior to the promulgation of such guidelines, a permit may be issued under such section 402 if the Administrator determines it to be in the public interest.

"(b) The requirements of subsection (d) of section 402 of this Act may not be waived in the case of permits for discharges into the territorial sea.

"(c) (1) The Administrator shall, within one hundred and eighty days after enactment of this Act (and from time to time thereafter), promulgate guidelines for determining the degradation of the waters of the territorial seas, the contiguous zone, and the oceans, which shall include:

"(A) the effect of disposal of pollutants on human health or welfare, including but not limited to plankton, fish, shellfish, wildlife, shorelines, and beaches;

"(B) the effect of disposal of pollutants on marine life including the transfer, concentration, and dispersal of pollutants or their byproducts through biological, physical, and chemical processes; changes in marine ecosystem diversity, productivity, and stability; and species and community population changes;

"(C) the effect of disposal, of pollutants on esthetic, recreation, and economic values;

"(D) the persistence and permanence of the effects of disposal of pollutants;

"(E) the effect of the disposal at varying rates, of particular volumes and concentrations of pollutants;

"(F) other possible locations and methods of disposal or recycling of pollutants including land-based alternatives; and

"(G) the effect on alternate uses of the oceans, such as mineral exploitation and scientific study.

"(2) In any event where insufficient information exists on any proposed discharge to make a reasonable judgment on any of the guidelines established pursuant to this subsection no permit shall be issued under section 402 of this Act.

#### "PERMITS FOR DREDGED OR FILL MATERIAL

"SEC. 404. (a) The Secretary of the Army, acting through the Chief of Engineers, may issue permits, after notice and opportunity for public hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites.

"(b) Subject to subsection (c) of this section, each such disposal site shall be specified for each such permit by the Secretary of the Army (1) through the application of guidelines developed by the Administrator, in conjunction with the Secretary of the Army, which guidelines shall be based upon criteria comparable to the criteria applicable to the territorial seas, the contiguous zone, and the ocean under section 403(c), and (2) in any case where such guidelines under clause (1) alone would prohibit the specification of a site, through the application additionally of the economic impact of the site on navigation and anchorage.

"(c) The Administrator is authorized to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, and he is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site, whenever he determines, after notice and opportunity for public hearings, that the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. Before making such determination, the Administrator shall consult with the Secretary of the Army. The Administrator shall set forth in writing and make public his findings and his reasons for making any determination under this subsection.

#### "DISPOSAL OF SEWAGE SLUDGE

"SEC. 405. (a) Notwithstanding any other provision of this Act or of any other law, in any case where the disposal of sewage sludge resulting from the operation of a treatment works as defined in section 212 of this Act (including the removal of in-place sewage sludge from one location and its deposit at another location) would result in any pollutant from such sewage sludge entering the navigable waters, such disposal is prohibited except in accordance with a permit issued by the Administrator under this section.

"(b) The Administrator shall issue regulations governing the issuance of permits for the disposal of sewage sludge subject to this section. Such regulations shall require the application to such disposal of each criterion, factor, procedure, and requirement applicable to a permit issued under section 402 of this title, as the Administrator determines necessary to carry out the objective of this Act.

"(c) Each State desiring to administer its own permit program for disposal of sewage sludge within its jurisdiction may do so if upon submission of such program the Administrator determines such program is adequate to carry out the objective of this Act.

#### "TITLE V—GENERAL PROVISIONS

##### "ADMINISTRATION

"SEC. 501. (a) The Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this Act.

"(b) The Administrator, with the consent of the head of any other agency of the United States, may utilize such officers and employees of such agency as may be found necessary to assist in carrying out the purposes of this Act.

"(c) Each recipient of financial assistance under this Act shall keep such records as the Administrator shall prescribe, including records which fully disclose the amount and disposition by such recipient of the proceeds of such assistance, the total cost of the project or undertaking in connection with which such assistance is given or used, and the amount of that portion of the cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

"(d) The Administrator and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access, for the purpose of audit and examination, to any books, documents, papers, and records of the recipients that are pertinent to the grants received under this Act.

"(e) (1) It is the purpose of this subsection to authorize a program which will provide official recognition by the United States Government to those industrial organizations and political subdivisions of States which during the preceding year demonstrated an outstanding technological achievement or an innovative process, method, or device in their waste treatment and pollution abatement programs. The Administrator shall, in consultation with the appropriate State water pollution control agencies, establish regulations under which such recognition may be applied for and granted, except that no applicant shall be eligible for an award under this subsection if such applicant is not in total compliance with all applicable water quality requirements under this Act, or otherwise does not have a satisfactory record with respect to environmental quality.

"(2) The Administrator shall award a certificate or plaque of suitable design to each industrial organization or political subdivision which qualifies for such recognition under regulations established under this subsection.

"(3) The President of the United States, the Governor of the appropriate State, the Speaker of the House of Representatives, and the President pro tempore of the Senate shall be notified of the award by the Administrator and the awarding of such recognition shall be published in the Federal Register.

"(f) Upon the request of a State water pollution control agency, personnel of the Environmental Protection Agency may be detailed to such agency for the purpose of carrying out the provisions of this Act.

#### "GENERAL DEFINITIONS

"Sec. 502. Except as otherwise specifically provided, when used in this Act:

"(1) The term 'State water pollution control agency' means the State agency designated by the Governor having responsibility for enforcing State laws relating to the abatement of pollution.

"(2) The term 'interstate agency' means an agency of two or more States established by or pursuant to an agreement or compact approved by the Congress, or any other agency of two or more States, having substantial powers or duties pertaining to the control of pollution as determined and approved by the Administrator.

"(3) The term 'State' means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands.

"(4) The term 'municipality' means a city, town, borough, county, parish, district, association, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of this Act.

"(5) The term 'person' means an individual, corporation, partnership, association, State, municipality, commission, or political subdivision of a State, or any interstate body.

"(6) The term 'pollutant' means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. This term does not mean (A) 'sewage from vessels' within the meaning of section 312 of this Act; or (B) water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if such State determines that such injection or disposal will not result in the degradation of ground or surface water resources.

"(7) The term 'navigable waters' means the waters of the United States, including the territorial seas.

"(8) The term 'territorial seas' means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles.

"(9) The term 'contiguous zone' means the entire zone established or to be established by the United States under article 24 of the Convention of the Territorial Sea and the Contiguous Zone.

"(10) The term 'ocean' means any portion of the high seas beyond the contiguous zone.

"(11) The term 'effluent limitation' means any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance.

"(12) The term 'discharge of a pollutant' and the term 'discharge of pollutants' each means (A) any addition of any pollutant to navigable waters from any point source, (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft.

"(13) The term 'toxic pollutant' means those pollutants, or com-

binations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring.

"(14) The term 'point source' means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

"(15) The term 'biological monitoring' shall mean the determination of the effects on aquatic life, including accumulation of pollutants in tissue, in receiving waters due to the discharge of pollutants (A) by techniques and procedures, including sampling of organisms representative of appropriate levels of the food chain appropriate to the volume and the physical, chemical, and biological characteristics of the effluent, and (B) at appropriate frequencies and locations.

"(16) The term 'discharge' when used without qualification includes a discharge of a pollutant, and a discharge of pollutants.

"(17) The term 'schedule of compliance' means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard.

"(18) The term 'industrial user' means those industries identified in the Standard Industrial Classification Manual, Bureau of the Budget, 1967, as amended and supplemented, under the category 'Division D—Manufacturing' and such other classes of significant waste producers as, by regulation, the Administrator deems appropriate.

"(19) The term 'pollution' means the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.

#### "WATER POLLUTION CONTROL ADVISORY BOARD

"Sec. 503. (a) (1) There is hereby established in the Environmental Protection Agency a Water Pollution Control Advisory Board, composed of the Administrator or his designee, who shall be Chairman, and nine members appointed by the President, none of whom shall be Federal officers or employees. The appointed members, having due regard for the purposes of this Act, shall be selected from among representatives of various State, interstate, and local governmental agencies, of public or private interests contributing to, affected by, or concerned with pollution, and of other public and private agencies, organizations, or groups demonstrating an active interest in the field of pollution prevention and control, as well as other individuals who are expert in this field.

"(2) (A) Each member appointed by the President shall hold office for a term of three years, except that (i) any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term, and (ii) the terms of office of the members first taking office after June 30, 1956, shall expire as follows: three at the end of one year after such date, three at the end of two years after such date, and three at the end of three years after such date, as designated by the President at the time of appointment, and (iii) the term of any member under the preceding provisions shall be extended until the date on which his successor's appointment is effective. None of the members appointed by the President shall be eligible for reappointment within one year after the end of his preceding term.

"(B) The members of the Board who are not officers or employees of the United States, while attending conferences or meetings of the Board or while otherwise serving at the request of the Administrator, shall be entitled to receive compensation at a rate to be fixed by the Administrator, but not exceeding \$100 per diem, including travel-time, and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law (5 U.S.C. 73b-2) for persons in the Government service employed intermittently.

"(b) The Board shall advise, consult with, and make recommendations to the Administrator on matters of policy relating to the activities and functions of the Administrator under this Act.

"(c) Such clerical and technical assistance as may be necessary to discharge the duties of the Board shall be provided from the personnel of the Environmental Protection Agency.

#### "EMERGENCY POWERS

"Sec. 504. Notwithstanding any other provision of this Act, the Administrator upon receipt of evidence that a pollution source or combination of sources is presenting an imminent and substantial endangerment to the health of persons or to the welfare of persons where such endangerment is to the livelihood of such persons, such as inability to market shellfish, may bring suit on behalf of the United States in the appropriate district court to immediately restrain any

person causing or contributing to the alleged pollution to stop the discharge of pollutants causing or contributing to such pollution or to take such other action as may be necessary.

#### "CITIZEN SUITS"

"Sec. 505. (a) Except as provided in subsection (b) of this section, any citizen may commence a civil action on his own behalf—

"(1) against any person (including (i) the United States, and (ii) any other governmental instrumentality or agency to the extent permitted by the eleventh amendment to the Constitution) who is alleged to be in violation of (A) an effluent standard or limitation under this Act or (B) an order issued by the Administrator or a State with respect to such a standard or limitation, or

"(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this Act which is not discretionary with the Administrator.

The district courts shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce such an effluent standard or limitation, or such an order, or to order the Administrator to perform such act or duty, as the case may be, and to apply any appropriate civil penalties under section 309 (d) of this Act.

"(b) No action may be commenced—

"(1) under subsection (a) (1) of this section—

"(A) prior to sixty days after the plaintiff has given notice of the alleged violation (i) to the Administrator, (ii) to the State in which the alleged violation occurs, and (iii) to any alleged violator of the standard, limitation, or order, or

"(B) if the Administrator or State has commenced and is diligently prosecuting a civil or criminal action in a court of the United States, or a State to require compliance with the standard, limitation, or order, but in any such action in a court of the United States any citizen may intervene as a matter of right.

"(2) under subsection (a) (2) of this section prior to sixty days after the plaintiff has given notice of such action to the Administrator,

except that such action may be brought immediately after such notification in the case of an action under this section respecting a violation of sections 306 and 307 (a) of this Act. Notice under this subsection shall be given in such manner as the Administrator shall prescribe by regulation.

"(c) (1) Any action respecting a violation by a discharge source of an effluent standard or limitation or an order respecting such standard or limitation may be brought under this section only in the judicial district in which such source is located.

"(2) In such action under this section, the Administrator, if not a party, may intervene as a matter of right.

"(d) The court, in issuing any final order in any action brought pursuant to this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

"(e) Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any effluent standard or limitation or to seek any other relief (including relief against the Administrator or a State agency).

"(f) For purposes of this section, the term 'effluent standard or limitation under this Act' means (1) effective July 1, 1973, an unlawful act under subsection (a) of section 301 of this Act; (2) an effluent limitation or other limitation under section 301 or 302 of this Act; (3) standard of performance under section 306 of this Act; (4) prohibition, effluent standard or pretreatment standards under section 307 of this Act; (5) certification under section 401 of this Act; or (6) a permit or condition thereof issued under section 402 of this Act, which is in effect under this Act (including a requirement applicable by reason of section 313 of this Act).

"(g) For the purposes of this section the term 'citizen' means a person or persons having an interest which is or may be adversely affected.

"(h) A Governor of a State may commence a civil action under subsection (a), without regard to the limitations of subsection (b) of this section, against the Administrator where there is alleged a failure of the Administrator to enforce an effluent standard or limitation under this Act the violation of which is occurring in another State and is causing an adverse effect on the public health or welfare in his State, or is causing a violation of any water quality requirement in his State.

#### "APPEARANCE"

"Sec. 506. The Administrator shall request the Attorney General to appear and represent the United States in any civil or criminal action instituted under this Act to which the Administrator is a party. Unless the Attorney General notifies the Administrator within a reasonable time, that he will appear in a civil action, attorneys who are officers or

employees of the Environmental Protection Agency shall appear and represent the United States in such action.

#### "EMPLOYEE PROTECTION"

"Sec. 507. (a) No person shall fire, or in any other way discriminate against, or cause to be fired or discriminated against, any employee or any authorized representative of employees by reason of the fact that such employee or representative has filed, instituted, or caused to be filed or instituted any proceeding under this Act, or has testified or is about to testify in any proceeding resulting from the administration or enforcement of the provisions of this Act.

"(b) Any employee or a representative of employees who believes that he has been fired or otherwise discriminated against by any person in violation of subsection (a) of this section may, within thirty days after such alleged violation occurs, apply to the Secretary of Labor for a review of such firing or alleged discrimination. A copy of the application shall be sent to such person who shall be the respondent. Upon receipt of such application, the Secretary of Labor shall cause such investigation to be made as he deems appropriate. Such investigation shall provide an opportunity for a public hearing at the request of any party to such review to enable the parties to present information relating to such alleged violation. The parties shall be given written notice of the time and place of the hearing at least five days prior to the hearing. Any such hearing shall be of record and shall be subject to section 554 of title 5 of the United States Code. Upon receiving the report of such investigation, the Secretary of Labor shall make findings of fact. If he finds that such violation did occur, he shall issue a decision, incorporating an order therein and his findings, requiring the party committing such violation to take such affirmative action to abate the violation as the Secretary of Labor deems appropriate, including, but not limited to, the rehiring or reinstatement of the employee or representative of employees to his former position with compensation. If he finds that there was no such violation, he shall issue an order denying the application. Such order issued by the Secretary of Labor under this subparagraph shall be subject to judicial review in the same manner as orders and decisions of the Administrator are subject to judicial review under this Act.

"(c) Whenever an order is issued under this section to abate such violation, at the request of the applicant, a sum equal to the aggregate amount of all costs and expenses (including the attorney's fees), as determined by the Secretary of Labor, to have been reasonably incurred by the applicant for, or in connection with, the institution and prosecution of such proceedings, shall be assessed against the person committing such violation.

"(d) This section shall have no application to any employee who, acting without direction from his employer (or his agent) deliberately violates any prohibition of effluent limitation or other limitation under section 301 or 302 of this Act, standards of performance under section 306 of this Act, effluent standard, prohibition or pretreatment standard under section 307 of this Act, or any other prohibition or limitation established under this Act.

"(e) The Administrator shall conduct continuing evaluations of potential loss or shifts of employment which may result from the issuance of any effluent limitation or order under this Act, including, where appropriate, investigating threatened plant closures or reductions in employment allegedly resulting from such limitation or order. Any employee who is discharged or laid-off, threatened with discharge or lay-off, or otherwise discriminated against by any person because of the alleged results of any effluent limitation or order issued under this Act, or any representative of such employee, may request the Administrator to conduct a full investigation of the matter. The Administrator shall thereupon investigate the matter and, at the request of any party, shall hold public hearings on not less than five days notice, and shall at such hearings require the parties, including the employer involved, to present information relating to the actual or potential effect of such limitation or order on employment and on any alleged discharge, lay-off, or other discrimination and the detailed reasons or justification therefor. Any such hearing shall be of record and shall be subject to section 554 of title 5 of the United States Code. Upon receiving the report of such investigation, the Administrator shall make findings of fact as to the effect of such effluent limitation or order on employment and on the alleged discharge, lay-off, or discrimination and shall make such recommendations as he deems appropriate. Such report, findings, and recommendations shall be available to the public. Nothing in this subsection shall be construed to require or authorize the Administrator to modify or withdraw any effluent limitation or order issued under this Act.

#### "FEDERAL PROCUREMENT"

"Sec. 508. (a) No Federal agency may enter into any contract with any person, who has been convicted of any offense under section 209 (c) of this Act, for the procurement of goods, materials, and services if such contract is to be performed at any facility at which the violation which gave rise to such conviction occurred, and if such facility is owned, leased, or supervised by such person. The prohibition in the

preceding sentence shall continue until the Administrator certifies that the condition giving rise to such conviction has been corrected.

"(b) The Administrator shall establish procedures to provide all Federal agencies with the notification necessary for the purposes of subsection (a) of this section.

"(c) In order to implement the purposes and policy of this Act to protect and enhance the quality of the Nation's water, the President shall, not more than one hundred and eighty days after enactment of this Act, cause to be issued an order (1) requiring each Federal agency authorized to enter into contracts and each Federal agency which is empowered to extend Federal assistance by way of grant, loan, or contract to effectuate the purpose and policy of this Act in such contracting or assistance activities, and (2) setting forth procedures, sanctions, penalties, and such other provisions, as the President determines necessary to carry out such requirement.

"(d) The President may exempt any contract, loan, or grant from all or part of the provisions of this section where he determines such exemption is necessary in the paramount interest of the United States and he shall notify the Congress of such exemption.

"(e) The President shall annually report to the Congress on measures taken in compliance with the purpose and intent of this section, including, but not limited to, the progress and problems associated with such compliance.

#### "ADMINISTRATIVE PROCEDURE AND JUDICIAL REVIEW

"Sec. 509. (a) (1) For purposes of obtaining information under section 305 of this Act, or carrying out section 507(e) of this Act, the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and he may administer oaths. Except for effluent data, upon a showing satisfactory to the Administrator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18 of the United States Code, except that such paper, book, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act, or when relevant in any proceeding under this Act. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpoena served upon any person under this subsection, the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator, to appear and produce papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

"(2) The district courts of the United States are authorized, upon application by the Administrator, to issue subpoenas for attendance and testimony of witnesses and the production of relevant papers, books, and documents, for purposes of obtaining information under sections 304 (b) and (c) of this Act. Any papers, books, documents, or other information or part thereof, obtained by reason of such a subpoena shall be subject to the same requirements as are provided in paragraph (1) of this subsection.

"(b) (1) Review of the Administrator's action (A) in promulgating any standard of performance under section 306, (B) in making any determination pursuant to section 306(b) (1) (C), (C) in promulgating any effluent standard, prohibition, or pretreatment standard under section 307, (D) in making any determination as to a State permit program submitted under section 402(b), (E) in approving or promulgating any effluent limitation or other limitation under section 301, 302, or 306, and (F) in issuing or denying any permit under section 402, may be had by any interested person in the Circuit Court of Appeals of the United States for the Federal judicial district in which such person resides or transacts such business upon application by such person. Any such application shall be made within ninety days from the date of such determination, approval, promulgation, issuance or denial, or after such date only if such application is based solely on grounds which arose after such ninetieth day.

"(2) Action of the Administrator with respect to which review could have been obtained under paragraph (1) of this subsection shall not be subject to judicial review in any civil or criminal proceeding for enforcement.

"(c) In any judicial proceeding brought under subsection (b) of this section in which review is sought of a determination under this Act required to be made on the record after notice and opportunity for hearing, if any party applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in

such manner and upon such terms and conditions as the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

#### "STATE AUTHORITY

"Sec. 510. Except as expressly provided in this Act, nothing in this Act shall (1) preclude or deny the right of any State or political subdivision thereof or interstate agency to adopt or enforce (A) any standard or limitation respecting discharges of pollutants, or (B) any requirement respecting control or abatement of pollution; except that if an effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance is in effect under this Act, such State or political subdivision or interstate agency may not adopt or enforce any effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance which is less stringent than the effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance under this Act; or (2) be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters (including boundary waters) of such States.

#### "OTHER AFFECTED AUTHORITY

"Sec. 511. (a) This Act shall not be construed as (1) limiting the authority or functions of any officer or agency of the United States under any other law or regulation not inconsistent with this Act; (2) affecting or impairing the authority of the Secretary of the Army (A) to maintain navigation or (B) under the Act of March 3, 1899 (30 Stat. 1112); except that any permit issued under section 404 of this Act shall be conclusive as to the effect on water quality of any discharge resulting from any activity subject to section 10 of the Act of March 3, 1899, or (3) affecting or impairing the provisions of any treaty of the United States.

"(b) Discharges of pollutants into the navigable waters subject to the Rivers and Harbors Act of 1910 (36 Stat. 593; 33 U.S.C. 421) and the Supervisory Harbors Act of 1888 (25 Stat. 209; 33 U.S.C. 441-451b) shall be regulated pursuant to this Act, and not subject to such Act of 1910 and the Act of 1888 except as to effect on navigation and anchorage.

"(c) (1) Except for the provision of Federal financial assistance for the purpose of assisting the construction of publicly owned treatment works as authorized by section 201 of this Act, and the issuance of a permit under section 402 of this Act for the discharge of any pollutant by a new source as defined in section 306 of this Act, no action of the Administrator taken pursuant to this Act shall be deemed a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act of 1969 (83 Stat. 852); and

"(2) Nothing in the National Environmental Policy Act of 1969 (83 Stat. 852) shall be deemed to—

"(A) authorize any Federal agency authorized to license or permit the conduct of any activity which may result in the discharge of a pollutant into the navigable waters to review any effluent limitation or other requirement established pursuant to this Act or the adequacy of any certification under section 401 of this Act; or

"(B) authorize any such agency to impose, as a condition precedent to the issuance of any license or permit, any effluent limitation other than any such limitation established pursuant to this Act.

(d) Notwithstanding this Act or any other provision of law, the Administrator (1) shall not require any State to consider in the development of the ranking in order of priority of needs for the construction of treatment works (as defined in title II of this Act), any water pollution control agreement which may have been entered into between the United States and any other nation, and (2) shall not consider any such agreement in the approval of any such priority ranking.

#### "SEPARABILITY

"Sec. 512. If any provision of this Act, or the application of any provision of this Act to any person or circumstance, is held invalid, the application of such provision to other persons or circumstances, and the remainder of this Act, shall not be affected thereby.

#### "LABOR STANDARDS

"Sec. 513. The Administrator shall take such action as may be necessary to insure that all laborers and mechanics employed by contractors or subcontractors on treatment works for which grants are made under this Act shall be paid wages at rates not less than those prevailing for the same type of work on similar construction in the immediate locality, as determined by the Secretary of Labor, in

necticut Avenue, NW., Washington, D.C.  
Dated at Washington, D.C., July 31  
1973.

[SEAL] RALPH L. WISER,  
Chief Administrative Law Judge.  
[FR Doc.73-16143 Filed 8-3-73;8:45 am]

### COMMISSION ON CIVIL RIGHTS COLORADO STATE ADVISORY COMMITTEE

#### Notice of Closed Meeting

Pursuant to the provisions of the Federal Advisory Committee Act (Public Law 92-463, 86 Stat. 707) notice is hereby given that the Colorado State Advisory Committee to the U.S. Commission on Civil Rights will meet in a closed session at 9:00 A.M., Monday, August 6, 1973, in Room 216, Ross Building, 1726 Champa Street, Denver, Colorado 80202.

The agenda will consist of discussions leading to recommendations on proposed revisions to the first draft of the Colorado Prison preliminary report.

I have determined that this meeting would fall within exemption (5) of 5 U.S.C. 522(b) and that it is essential to close the meeting to protect the free exchange of internal views and to avoid interference with the operation of the Committee.

Issued in Washington, D.C. on August 1, 1973.

ISAIAH T. CRESWELL, JR.,  
Advisory Committee  
Management Officer.

[FR Doc.73-16284 Filed 8-3-73;8:45 am]

### NEW MEXICO STATE ADVISORY COMMITTEE

#### Agenda and Notice of Open Meeting

Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights, that a planning meeting of the New Mexico State Advisory Committee to this Commission will convene at 6:00 p.m. on August 6, 1973, at the Four Seasons, 2500 Carlisle Boulevard, North East, Albuquerque, New Mexico 87110.

Persons wishing to attend this meeting should contact the Committee Chairman, or the Southwestern Regional Office of the Commission, Room 209, New Moore Building, 106 Broadway, San Antonio, Texas 78205.

The purpose of this meeting shall be to review plans for the Navajo Indian Hearing to be held in Window Rock, Arizona in September 1973, in which the New Mexico Committee will participate.

This meeting will be conducted pursuant to the rules and regulations of the Commission.

Dated at Washington, D.C., August 1, 1973.

ISAIAH T. CRESWELL, JR.,  
Advisory Committee  
Management Officer.

[FR Doc.73-16285 Filed 8-3-73;8:45 am]

### ENVIRONMENTAL PROTECTION AGENCY

#### EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS OF PERFORMANCE FOR NEW SOURCES

##### Advance Notice of Public Review Procedures

Advance notice is hereby given concerning notices of proposed rule making to be published by the Environmental Protection Agency ("EPA") with respect to effluent limitations guidelines, standards of performance, and pretreatment standards for new sources pursuant to sections 304(b), 306 and 307(c) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1314, 1316 and 1317(c); 86 Stat. 816 et seq.; Pub. L. 92-500) ("the Act"). The purpose of this notice is to facilitate public comment upon the regulations to be promulgated under sections 304(b), 306 and 307(c), both before and after the publication of the notices of proposed rule making. In addition, this notice will explain EPA's overall plans for development of effluent limitations guidelines and standards of performance for new sources and the approach which is being taken by the Agency in discharging the duties placed upon the Administrator under sections 304(b), 306 and 307(c) of the Act.

EPA believes that the exposure of the technical basis and reasoning underlying regulations to be established pursuant to sections 304(b), 306 and 307(c) is essential to the promulgation of sound effluent limitations guidelines and standards of performance for new sources. At the same time, because of the deadlines for action imposed upon the Administrator under the Act, both EPA and the public will be pressed to analyze and resolve highly complex and important issues in a relatively short time. In order both to develop sound regulations and meet the time schedules set by the Act, EPA intends to identify as many issues and elicit points of criticism at the earliest possible time. To resolve such issues often will require further staff work and management decision-making within EPA and may necessitate substantial redrafting of regulations and support documents. Therefore, extensive external review cannot be postponed until internal EPA review of initial recommendations for effluent limitations guidelines and standards of performance has been completed, but must proceed concurrently with EPA's own internal review and decision-making if the Act's deadlines are to be met.

EPA has already begun this process by seeking comments upon draft technical reports from persons and organizations known to be interested in particular source categories. These reports (which are discussed further below) contain tentative recommended effluent limitations guidelines and standards of performance. This notice seeks to supplement this already initiated external review and facilitate further review and public comment in late August and early September, when notices of proposed rule

making will be published in the *FEDERAL REGISTER*. The notice is divided into three parts. First, the basic legal authority for regulations concerning effluent limitations guidelines and standards of performance for new sources will be set forth. Second, EPA's general methodology will be described. Third, the means by which EPA has to date, and will in the future, seek the widest possible public scrutiny of the technical and legal basis for the regulations to be established will be explained.

1. *Legal authorities* — (a) *Existing point sources*. Section 301(b) of the Act requires the achievement by not later than July 1, 1977, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 304(b) of the Act. Section 301(b) also requires the achievement by not later than July 1, 1983, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best available technology economically achievable which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 304(b) of the Act.

Section 304(b) of the Act requires the Administrator to publish regulations providing guidelines for effluent limitations setting forth the degree of effluent reduction attainable through the application of the best practicable control technology currently available (the 1977 requirement) and the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods and other alternatives (the 1963 requirement).

(b) *New sources*. Section 306 of the Act requires the achievement by new sources of a Federal standard of performance providing for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

Section 306(b)(1)(B) of the Act requires the Administrator to propose regulations establishing Federal standards of performance for categories of new sources included in a list published pursuant to section 306(b)(1)(A) of the Act. The Administrator published in the *FEDERAL REGISTER* of January 16, 1973, (38 FR 1624) a list of source categories for which standards of performance for new sources will initially be established. Section 306(a)(2) defines "new source" as "any source, the construction of which is commenced after the publication of proposed regulations prescribing a stand-

ard of performance under this section which will be applicable to such source . . . .

Section 307(c) of the Act requires the Administrator to promulgate pretreatment standards for a category of new sources at the same time that standards of performance for that category are promulgated pursuant to section 306. EPA presently plans to include in proposed and promulgated regulations establishing standards of performance for new sources, provisions which will require application of pretreatment standards which are consistent with EPA's proposed pretreatment standards for existing sources. The basis for the latter standards is set forth in the FEDERAL REGISTER of July 19, 1973 (38 FR 19236) under 40 CFR Part 128. The provisions and rationale of Part 128 are equally applicable to sources which would constitute "new sources", under section 306 if they were to discharge pollutants directly to navigable waters, except for § 128.133. That section provides a pretreatment standard for "incompatible pollutants" which requires application of the "best practicable control technology currently available," subject to an adjustment for amounts of pollutants removed by the publicly owned treatment works. Since the pretreatment standards to be promulgated under section 307(c) apply to new sources, the regulations establishing standards of performance for new sources will amend § 128.133 to require application of the standard of performance for new sources rather than the "best practicable" standard applicable to existing sources under sections 301 and 304(b) of the Act.

2. *EPA's methodology*—(a) *Overall approach*. The technical studies discussed below and the development of regulations for effluent limitations guidelines and standards of performance are undertaken in the following manner. The point source category is first studied for the purpose of determining whether separate limitations and standards are appropriate for different segments within the category. This analysis includes a determination of whether differences in raw material used, product produced, manufacturing process employed, age and size of plants, waste water constituents and other factors require development of separate limitations and standards for different segments of the point source category. The raw waste characteristics for each such segment are then identified. This includes an analysis of (1) the source, flow and volume of water used in the process employed and the sources of waste and waste waters in the plant; and (2) the constituents of waste waters. The constituents of the waste waters which should be subject to effluent limitations guidelines and standards of performance are then identified.

Next, the control and treatment technologies existing within each segment are identified. This includes an identification of each distinct control and treatment technology, including both in-plant

and end-of-process technologies, which exists or is capable of being designed for each segment. It also includes an identification of the effluent level resulting from the application of each of the treatment and control technologies, in terms of the amount of constituents and the chemical, physical, and biological characteristics of pollutants. The problems, limitations and reliability of each treatment and control technology are also identified. In addition, any non-water quality environmental impact, such as the effects of the application of such technologies upon other pollution problems, including air, solid waste, noise and radiation is examined. Finally, the energy requirements of each control and treatment technology are determined, as well as the cost of the application of such technologies.

This information is then evaluated in order to determine what levels of technology constitute the "best practicable control technology currently available", "best available technology economically achievable" and the "best available demonstrated control technology, processes, operating methods, or other alternatives." In identifying such technologies, various factors are considered including the total cost of the application of technology in relation to the effluent reduction benefits to be achieved from such application, the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes and non-water quality environmental impact (including energy requirements).

The data on which the above analysis was performed included EPA permit applications, EPA sampling and inspections, industry submissions and consultant reports, including the reports discussed below.

(b) *Technical studies*. Studies of some thirty point source categories for which regulations will initially be promulgated were instituted by EPA as soon as possible after passage of the Federal Water Pollution Control Act Amendments of 1972 (October 18, 1972). These studies constitute in-depth analyses of the technological feasibility and economic costs of reducing or eliminating discharges of pollutants. The studies, along with other information obtained by EPA in the course of internal and external review of the resulting reports or otherwise available to EPA, will serve as a foundation for the regulations to be issued under sections 304(b) and 306 of the Act.

To have attempted to amass within the Agency in a very short period of time the large number of technical personnel with experience in the many diverse point source categories to be covered would have been impractical. Therefore, the overall data base and initial analysis has been obtained through contracts with qualified technical consultants. These consultants were instructed to perform in-depth studies of each point source category, under the supervision and with the assistance of EPA, in accordance

with the methodology described above. The resulting draft reports include initial tentative recommendations with respect to the effluent limitations guidelines and standards of performance for the particular point source category concerned. The draft reports and recommendations are then subjected to extensive internal and external review. The contractors are assisting in the initial collection and collation of the data base. The responsibility for establishing effluent limitations guidelines and standards of performance for new sources, of course, remains with EPA.

For each of the point source categories covered by the technical studies, EPA is also conducting supplementary studies of the economic impact which could result from application of alternative control and treatment technologies. These studies add to the economic analyses already undertaken as part of the technical studies, which center upon the investment and operating costs associated with various alternative control and treatment technologies, by estimating the broader economic effects which might result from the required application of various technologies. The economic impact studies will investigate effects of alternative approaches in terms of product price increases, effects upon employment and the continued viability of affected plants, effects upon foreign trade and other competitive effects. These reports may be obtained in the same manner as the EPA draft reports, as discussed in section 3(c) below.

Contractors' technical studies of the following point source categories have been completed:

1. Pulp, Paper and Paperboard Mills
2. Builders Paper and Board Mills
3. Meat Product and Rendering Processing
4. Dairy Product Processing
5. Grain Mills
6. Canned and Preserved Fruits and Vegetables Processing
7. Canned and Preserved Seafood Processing
8. Beet Sugar Processing
9. Cane Sugar Processing
10. Textile Mills
11. Cement Manufacturing
12. Feedlots
13. Elect. plating
14. Organic Chemicals Manufacturing
15. Inorganic Chemicals Manufacturing
16. Plastics and Synthetic Materials Manufacturing
17. Soap and Detergent Manufacturing
18. Fertilizer Manufacturing
19. Petroleum Refining
20. Iron and Steel Manufacturing
21. Nonferrous Metals Manufacturing
22. Phosphate Manufacturing
23. Steam Electric Powerplants
24. Ferroalloy Manufacturing
25. Leather Tanning and Finishing
26. Glass Manufacturing
27. Insulation Fiberglass Manufacturing
28. Timber Products Processing
29. Beet Sugar Processing Industry
30. Insulation Fiberglass Industry

3. *Public participation in the development of regulations*—(a) *Review of the draft contractors' reports*. The completed contractors' reports are presently undergoing intensive analysis within

## NOTICES

EPA and are also receiving extensive external review and comment. This process of internal and external review is being carried on simultaneously in order to make the most of the time available under the Act. Once the contractors' draft reports are received by EPA, they are immediately distributed to a list of external reviewers for critical analysis. The persons or institutions listed below have been sent the draft reports. They have been asked to comment within 30 days so there will be time for their comments to be taken into account by EPA when preparing proposed rule making documents.

## STATES

Alabama Water Improvement Commission  
State Office Building  
Montgomery, Alabama 36104

State of Alaska  
Department of Environmental Conservation  
Pouch O  
Juneau, Alaska 99801

Commission of Arizona State Department of Health  
4019 N. 33rd Avenue  
Phoenix, Arizona 95017

Department of Pollution Control and Ecology  
1100 Harrington Avenue  
Little Rock, Arkansas 72202

California State Water Resources Control Board  
Sacramento, California 95814

Water Pollution Control Division  
Colorado Department of Health  
4210 E 11th Avenue  
Denver, Colorado 80220

Division of Water Compliance and Hazardous Substances  
Department of Environmental Protection  
State Office Building  
Hartford, Connecticut 06115

Department of Natural Resources and Environmental Control  
Capitol Complex  
Tatnell Building  
Dover, Delaware 19901

Department of Pollution Control  
2562 Executive Center Circle East  
Tallahassee, Florida 32301

Environmental Protection Division  
Department of Natural Resources  
47 Trinity Avenue, S.W.  
Atlanta, Georgia 30334

Assistant Director for Environmental Health  
Hawaii State Department of Health  
P.O. Box 3378  
Honolulu, Hawaii 96801

Indiana Stream Pollution Control Board  
1330 West Michigan Street  
Indianapolis, Indiana 46206

State of Idaho  
Department of Environmental and Community Services  
State House  
Boise, Idaho 83720

Water Quality Management Division  
Department of Environmental Quality  
Lucas State Office Building  
Des Moines, Iowa 50319

Division of Environmental Health  
Kansas State Department of Health  
535 Kansas Avenue  
Topeka, Kansas 66603

Kentucky Water Pollution Control Commission

275 East Main Street  
Frankfort, Kentucky 40601

Louisiana Stream Control Commission  
P.O. Drawer FC  
University Station  
Baton Rouge, Louisiana 70803

Environmental Health Division  
Louisiana State Board of Health  
New Orleans, Louisiana

Department of Environmental Protection  
State House  
Augusta, Maine 04430

Water Resources Administration  
Tower State Office Building  
D2 Water Resources  
Annapolis, Maryland 21401

Division of Water Pollution Control  
State Office Building  
100 Cambridge Street  
Boston, Massachusetts 02202

Michigan Water Resources Commission  
Steven T. Mason Building  
Lansing, Michigan 45916

Minnesota Pollution Control Agency  
State Board of Health Building  
717 Delaware Street, SE  
Minneapolis, Minnesota 55440

Mississippi Air and Water Pollution Control Commission  
P.O. Box 827  
Jackson, Mississippi 39205

Missouri Clean Water Commission  
P.O. Box 154  
Jefferson City, Missouri 65101

Division of Environmental Sanitation  
State Department of Health  
Cogswell Building  
Helena, Montana 59601

Department of Environmental Control  
1420 P Street  
Lincoln, Nebraska 68509

Nevada Commission of Environmental Protection  
201 South Fall Street  
Carson City, Nevada 89701

New Hampshire Water Supply and Pollution Control Commission  
Prescott Park  
105 Loudon Road  
Concord, New Hampshire 03301

Department of Environmental Protection  
P.O. Box 1390  
Trenton, New Jersey 08625

New Mexico Environment Improvement Agency  
P.O. Box 2348  
Santa Fe, New Mexico 87501

Industrial Waste Bureau  
New York State Department of Environmental Conservation  
50 Wolf Road  
Albany, New York 12201

Office of Air and Water Resources  
Department of Natural and Economic Resources  
P.O. Box 27687  
Raleigh, North Carolina 27611

Environmental Health and Engineering Services  
Department of Health  
State Capitol  
Bismarck, North Dakota 58501

Ohio Environmental Protection Agency  
Columbus, Ohio 43216

Department of Pollution Control  
2241 N.W. 40th Street  
Oklahoma City, Oklahoma 73112

Oregon Department of Environmental Quality  
1234 S.W. Morrison  
Portland, Oregon 97205

Bureau of Sanitary Engineering  
Department of Environmental Resources  
P.O. Box 2351  
Harrisburg, Pennsylvania 17120

Division of Water Pollution Control  
Rhode Island Department of Health  
State Office Building  
Providence, Rhode Island 02903

South Carolina Pollution Control Authority  
P.O. Box 11628  
Columbia, South Carolina 29311

Division of Sanitary Engineers and Environmental Protection  
State Department of Health  
State Capitol  
Pierre, South Dakota 57501

Division of Water Quality Control  
Department of Public Health  
221 Cordell Hull Building  
Nashville, Tennessee 37219

Texas Water Control Board  
P.O. Box 13246  
Capitol Station  
Austin, Texas 78711

Bureau of Environmental Health  
Division of Health  
44 Medical Drive  
Salt Lake City, Utah 84113

Vermont Agency of Environmental Conservation  
Montpelier, Vermont 05602

Virginia State Water Control Board  
1010 State Office Building  
Richmond, Virginia 23219

Washington Department of Ecology  
P.O. Box 829  
Olympia, Washington 98504

West Virginia Division of Water Resources  
Department of Natural Resources  
1201 Greenbriar Street  
Charleston, West Virginia 25311

Division of Environmental Protection  
Wisconsin Department of Natural Resources  
P.O. Box 450  
Madison, Wisconsin 53701

Sanitary Engineering Services  
Division of Health and Medical Services  
Department of Health and Social Services  
State Office Building  
Cheyenne, Wyoming 82001

TERRITORIES

Environmental Quality Commission  
Government of Samoa  
Pago-Pago, Tutuila  
American Samoa 96920

Water Pollution Control Program  
Government of Guam  
P.O. Box 2816  
Agana, Guam 96910

Environmental Quality Board  
P.O. Box 11785  
San Juan, Puerto Rico 00910

Office of High Commission  
Division of Environmental Health  
Trust Territory of the Pacific Islands  
Saipan, Mariana Island 92950

RIVER BASIN COMMISSIONS

Delaware River Basin Commission  
25 State Police Drive  
West Trenton, New Jersey 08628

New England Interstate Water Pollution Control Commission

607 Boylston Street  
Boston, Massachusetts 02116  
Ohio River Valley Sanitation Commission  
414 Walnut Street  
Cincinnati, Ohio 45202

The reports have also been transmitted to the following agencies or organizations:

**AGENCIES AND OFFICES OF/OR RELATED TO THE  
FEDERAL GOVERNMENT**

Department of Agriculture  
Atomic Energy Commission  
Department of Commerce  
Department of Defense  
Federal Power Commission  
Department of Health, Education, and Welfare  
Department of Housing and Urban Development  
Department of the Interior  
Office of the Energy Advisor  
Department of the Treasury  
National Industrial Pollution Control Council  
U.S. Department of Commerce  
Water Resources Council  
Tennessee Valley Authority

**PUBLIC INTEREST GROUPS**

The American Society of Civil Engineers  
The American Society of Mechanical Engineers  
Businessmen for the Public Interest  
Conservation Division  
National Wildlife Federation  
The Conservation Foundation  
Environmental Defense Fund, Inc.  
Hudson River  
Sloop Restoration, Inc.  
Natural Resources Defense Council  
Water Pollution Control Federation

**INDUSTRY TRADE ASSOCIATIONS OR COMPANIES**

The Aluminum Association  
Aluminum Smelting and Recycling Institute  
American Corn Millers Federation  
American Electroplaters' Society  
American-Florida Sugar Cane League  
American Frozen Food Institute  
American Hardboard Association  
American Iron and Steel Institute  
American Livestock Feeders Association  
American Meat Institute  
American Mining Congress  
American National Cattleman's Association  
American Paper Institute  
American Petroleum Institute  
American Plywood Association  
American Public Power Association  
American Shrimp Cannery Association  
American Wood Preservers Association  
American Wood Preservers Institute  
American Textile Manufacturers Institute  
A.S.G. Industries, Inc.  
Atomic Industrial Forum, Inc.  
Beet Sugar Development Foundation  
Carpet and Rug Institute  
Catfish Farmers of America  
Chesapeake Bay Seafood Industries Association, Inc.  
Chlorine Institute  
Copper and Brass Fabricators Council  
Corn Refiners Association, Inc.  
Dairy Industry Committee  
Dimmitt Agricultural Industry  
Edison Electric Institute  
Environmental Pollution Control Program  
Glass Container, Inc.  
The Ferroalloy Association  
The Fertilizer Institute  
Ford Motor Company  
Glass Division  
Glass Containers Manufacturers Institute  
Hawaiian Sugar Planters Association  
Hardwood Plywood Manufacturing Association

Institute of American Poultry Industries  
International Institute of Synthetic Rubber Producers

Libbey-Owens-Ford Co.  
Manufacturing Chemists Association  
Metal Finishers Suppliers Association  
Miller's National Federation  
National Association of Electric Companies  
National Association of Metal Finishers  
National Broiler Council  
National Canners Association  
National Council of the Paper Industry for Air and Stream Improvement, Inc.  
National Independent Meat Packers Association  
National Fisheries Association  
National Forest Products Association  
National Milk Producers Federation  
National Pork Producers Association  
National Renderers Association, Inc.  
National Rural Electric Cooperative Association  
Northern Textile Association  
National Soft Wheat Millers Association  
Portland Cement Association  
P.P.G. Industries, Inc.  
Protein Cereal Products Institute  
Puerto Rico Land Administration  
Rice Millers Association  
Rubber Manufacturing Association  
Technical Association of the Pulp and Paper Industry  
Soap and Detergent Association  
Synthetic Organic Chemical Manufacturers Association  
Tanner's Council of America, Inc.  
Tennessee Valley Public Power Association  
Tuna Research Foundation, Inc.  
Technical Association of the Pulp and Paper Industry  
United States Beet Sugar Association  
United States Cane Sugar Refiner's Association  
Western States Meat Packers Association  
Western Wood Preserver Association

(b) *Public availability of draft technical reports.* The draft reports are voluminous and rapid reproduction in large quantities is difficult to accomplish. In order to maximize the usefulness of early external review of the reports, the reports must be transmitted to interested persons immediately upon receipt by EPA. Printing of substantial quantities of the reports would consume two to three weeks and, under applicable federal regulations, no more than approximately 160 copies of the reports may be provided through outside printing contracts. The 160 copies of the report supplied by the contractors have already been largely exhausted in transmissions to the organizations listed above, and for internal review purposes within EPA. However, a copy of every report is available in each of EPA's regional offices, which are listed in the Appendix to this notice, and a complete set of the reports is also available in EPA's Washington offices (Office of Public Affairs, Environmental Protection Agency, Room W-227, Waterside Mall, Washington, D.C. 20460). The Washington Office will also maintain a complete set of comments received from the public upon draft reports and upon the notices of proposed rule making which will subsequently be published. The draft reports, revised EPA reports which are described below, and all public comments, will be available for inspection and copying during regular business hours. Under EPA's information regulations (40 CFR, Part 2), a

fee may be required for making copies.

In addition to review of the EPA copies of the reports, interested persons may in many instances obtain a copy of a draft report by contacting an organization listed above with which they have an affiliation or by seeking to review a copy in the possession of the appropriate State agency.

(c) *Public availability of EPA draft reports.* Upon conclusion of internal and external review of the initial draft reports and their tentative recommendations, an EPA draft report will be prepared in support of proposed regulations to be issued in the FEDERAL REGISTER. The EPA draft report will be published simultaneously with the notice of proposed rule making. The EPA draft report may be different from the contractors' reports, particularly as to the assessment of practicability or availability of technology, and the conclusions reached with respect to effluent limitations guidelines and standards of performance for new sources.

However, EPA does not anticipate that the EPA report will be markedly different in terms of the fundamental data base for the regulations. In most cases, major issues or objections to the approach taken or the conclusions reached in the EPA draft report will have already been raised by the contractors' draft report. Criticisms of the adequacy of the data base and the analytical methods employed should therefore be expressed now rather than after the notice of proposed rule-making.

Nevertheless, EPA does not regard the contractors' draft report as an official EPA document and additional comments will, of course, be solicited once the EPA draft report and the associated proposed regulations are published (A final EPA report will also be prepared and published in support of the final regulations promulgated under sections 301, 304(b), 306 and 307(c)). The EPA draft report will be sent to the list of reviewers set forth earlier in this notice. In addition, EPA is establishing a mailing list of other persons wishing to obtain a copy of the EPA draft report. Any person wishing to be included on the list should so request as soon as possible, but no later than August 20, 1973. The request should be addressed to the "EPA Information Center, Attention: Mr. Philip B. Wisman, Environmental Protection Agency, Room W-327, Waterside Mall, Washington, D.C. 20460", and should indicate which specific reports the person or organization is interested in receiving. EPA will transmit a copy of the EPA draft report to those on the mailing list, as soon as the report is available. Copies of the EPA draft reports will otherwise be transmitted, upon request to EPA, at the address just quoted, as soon as possible. The economic studies referred to in section 2(b) above will be made available upon request in the same manner as the EPA draft reports.

EPA desires to make copies of all reports available to interested parties wishing to comment as soon as possible. EPA therefore requests the cooperation of the

public who are interested in, but not directly affected by, the proposed regulations are awaiting the final EPA report to be published after the final regulation is printed in the *FEDERAL REGISTER*, rather than requesting copies of the EPA draft reports.

(d) *Solicitation of public comments.* By seeking comments upon the initial draft reports which have already been prepared, and the initial recommended guidelines and standards which those reports contain, much of the analysis and comment which would ordinarily occur after notices of proposed rule making are published is taking place now. In this way the resolution of many issues can be accomplished even before notices of proposed rule making are published. These issues will be identified and their resolution explained in the notices of proposed rule making. Issues which remain unresolved will be highlighted in the notices. In addition, EPA hopes to enable all interested parties to be sufficiently familiar with the complex technical details underlying the proposed effluent limitations and standards so that they can respond to notices of proposed rule making in a relatively short time. In order to meet the deadlines imposed by the Act, the present plan is that the notices of proposed rule making will request formal, public comments within 21 days of publication of the notices in the *FEDERAL REGISTER*. Those persons who have indicated their desire to be included on the mailing list described above will receive copies of EPA's draft report supporting the proposed regulations in the *FEDERAL REGISTER*. As noted, these reports will reflect EPA's judgment as to the proper regulations; however, they will be based in large part upon the initial draft reports (which will have been available in most cases since early July 1973) and any comments received thereon.

EPA will consider all comments received up to the time indicated in the notices of proposed rule making. In addition, to the extent time allows, early comments upon the initial draft reports will be considered when developing proposed rule making regulations.

(e) *Conclusion.* In summary, EPA is, by this notice, seeking to encourage as wide ranging and thorough public review prior to proposal and promulgation of effluent limitations guidelines and standards of performance as is possible within the time allowed. The following specific steps may be taken by interested persons:

1. Submit comments upon initial draft reports and economic studies. To facilitate rapid transmission of comments to the persons concerned within EPA, and also have a copy which is immediately available for public review, EPA requests that comments be submitted in triplicate. All comments received before or after publication of the notice of proposed rule making, as well as all technical and economic reports, will be available for inspection and copying at the Office of Public Affairs, Room 227, West Tower, Waterside Mall, during regular business hours (8:00 a.m.-4:30 p.m.).

2. Request inclusion on a mailing list for the EPA draft reports and economic studies which will be published about the same time as notices of proposed rule making in the *FEDERAL REGISTER*. Requests to be included on the mailing list should be received by August 20, 1973 and should indicate which specific reports are requested.

3. Comment upon the notices of proposed rule making and the associated draft EPA technical and economic reports. All comments received within 21 days after publication of the notices in the *FEDERAL REGISTER* will be considered.

4. All public comments, requests to be included on the mailing list for reports and other requests for reports may be addressed to "EPA Information Center, Attention: Mr. Philip B. Wisman, Environmental Protection Agency, Room W-327, Waterside Mall, Washington, D.C. 20460."

In conclusion, it should be emphasized that EPA seeks comments upon its overall approach and legal interpretation of its responsibilities under sections 304(b), 306 and 307(c) of the Act, as well as upon the technical aspects of the initial draft reports, and the EPA reports to be issued. However, it should be also emphasized that the early expression of comments is essential if EPA is to be able to make whatever adjustments and responses which may be necessary in time to satisfy its responsibilities under the Act. In the event comments are in the nature of criticisms as to the adequacy of data which is available or which may be relied upon by the Agency, comments should identify any additional data which may be available and should indicate how such data is pertinent to the development of regulations under sections 301, 304(b), 306 and 307(c) of the Act. In the event comments address the approach taken to establishing an effluent limitation guideline or standard of performance, EPA solicits suggestions as to what alternative approach should be taken, or result reached, and why and how this fits with the detailed requirements of sections 304(b), 306 and 307(c) of the Act.

Dated: July 31, 1973.

ROBERT L. SANSOM,  
Assistant Administrator for  
Air and Water Programs.

#### APPENDIX

Director, Office of Public Affairs  
Environmental Protection Agency  
401 M Street, S.W.  
Washington, D.C. 20460

Director of Public Affairs  
Region I  
Environmental Protection Agency  
Room 2303  
John F. Kennedy Federal Building  
Boston, Massachusetts 02203

Director of Public Affairs  
Region II  
Environmental Protection Agency  
Room 847  
26 Federal Plaza  
New York, New York 10007

Director of Public Affairs  
Region III  
Environmental Protection Agency

Curtis Bldg., 6th and Walnut Streets  
Philadelphia, Pennsylvania 19106  
Director of Public Affairs  
Region IV  
Environmental Protection Agency  
Suite 300  
1421 Peachtree Street, N.E.  
Atlanta, Georgia 30309

Director of Public Affairs  
Region V  
Environmental Protection Agency  
1 N. Wacker Drive  
Chicago, Illinois 60606  
Director of Public Affairs  
Region VI  
Environmental Protection Agency  
1600 Patterson Street  
Dallas, Texas 75201

Director of Public Affairs  
Region VII  
Environmental Protection Agency  
1735 Baltimore Street  
Kansas City, Missouri 64108

Director of Public Affairs  
Region VIII  
Environmental Protection Agency  
Lincoln Tower, Room 916  
1860 Lincoln Street  
Denver, Colorado 80203

Director of Public Affairs  
Region IX  
Environmental Protection Agency  
100 California Street  
San Francisco, California 94102

Director of Public Affairs  
Region X  
Environmental Protection Agency  
1200 6th Avenue  
Seattle, Washington 98101

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## FEDERAL COMMUNICATIONS COMMISSION

[Report 659]

### COMMON CARRIER SERVICES INFORMATION<sup>1</sup>

Domestic Public Radio Services Applications Accepted for Filing<sup>2</sup>

JULY 30, 1973.

Pursuant to §§ 1.227(b)(3) and 21.30 (b) of the Commission's rules, an application, in order to be considered with any domestic public radio services application appearing on the attached list, must be substantially complete and tendered for filing by whichever date is earlier: (a) The close of business one business day preceding the day on which the Commission takes action on the previously filed application; or (b) Within 60 days after the date of the public notice listing the first prior filed application (with which subsequent applications are in conflict) as having been accepted for filing. An application which is subsequently amended by a major change will be con-

<sup>1</sup> All applications listed in the appendix are subject to further consideration and review and may be returned and/or dismissed if not found to be in accordance with the Commission's rules, regulations and other requirements.

<sup>2</sup> The above alternative cut-off rules apply to those applications listed in the appendix as having been accepted in Domestic Public Land Mobile Radio, Rural Radio, Point-to-Point Microwave Radio and Local Television Transmission Services (Part 21 of the rules).

# **federal register**

THURSDAY, FEBRUARY 14, 1974

WASHINGTON, D.C.

Volume 39 ■ Number 32

PART II



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## **ENVIRONMENTAL PROTECTION AGENCY**

### **FEEDLOTS POINT SOURCE CATEGORY**

#### **Effluent Guidelines and Standards**

**Title 40—Protection of the Environment**  
**CHAPTER I—ENVIRONMENTAL**  
**PROTECTION AGENCY**

**SUBCHAPTER N—EFFLUENT GUIDELINES AND**  
**STANDARDS**

**PART 412—FEEDLOTS POINT SOURCE**  
**CATEGORY**

**Effluent Limitations Guidelines**

On September 7, 1973, notice was published in the *FEDERAL REGISTER* (38 FR 24466) that the Environmental Protection Agency (EPA or Agency) was proposing effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the duck subcategories, and all subcategories except ducks of the feedlots category of point sources.

The purpose of this notice is to establish final effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources in the feedlots category of point sources, by amending 40 CFR Chapter I, Subchapter N, to add a new Part 412. This final rulemaking is promulgated pursuant to sections 301, 304(b) and (c), 306(b) and (c) and 307(c) of the Federal Water Pollution Control Act, as amended (the Act); 33 U.S.C. 1251, 1311, 1314(b) and (c), 1316(b) and (c) and 1317(c); 86 Stat. 816 et seq.; Pub. L. 92-500. Regulations regarding cooling water intake structures for all categories of point sources under section 316(b) of the Act will be promulgated in 40 CFR Part 402.

In addition, the EPA is simultaneously proposing a separate provision which appears in the proposed rules section of the *FEDERAL REGISTER*, stating the application of the limitations and standards set forth below to users of publicly owned treatment works which are subject to pretreatment standards under section 307(b) of the Act. The basis of that proposed regulation is set forth in the associated notice of proposed rulemaking.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for all subcategories except ducks and the ducks subcategory. In addition, the regulations as proposed were supported by two other documents: (1) The document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Feedlots Point Source Category" (August 1973) and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines, Feedlots" (August 1973). Both of these documents were made available to the public and circulated to interested persons at approximately the time of publication of the notice of proposed rulemaking.

Interested persons were invited to participate in the rulemaking by submitting written comments within 30 days from the date of publication. Prior public par-

ticipation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties were described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response thereto follows.

The regulation as promulgated contains important changes from the proposed regulation. The following discussion outlines the reasons why these changes were made and why other suggested changes were not implemented.

(a) Summary of comments.

The following responded to the request for written comments contained in the preamble to the proposed regulation: Five Federal agencies including the U.S. Department of Commerce and the U.S. Department of Agriculture; sixty-four national, state and local trade associations including the National Livestock Feeders Association, American National Cattlemen's Association, National Milk Producers Federation, National Pork Producers Council, and the National Broiler Council; eight public interest groups including the Natural Resources Defense Council and the Lake Gage-Lime Lake Association; twenty-one universities and colleges including Iowa State University, Kansas State University, University of Minnesota, University of Wisconsin, Texas A and M University, Oklahoma State University and Oregon State University; twenty state and local governmental agencies including the Missouri Clean Water Commission, Wisconsin Department of Natural Resources, Minnesota Pollution Control Agency, Illinois Environmental Protection Agency, State of Indiana, Suffolk County (N.Y.) Environmental Control Commission; approximately one hundred inquiries from members of the United States Congress; and several hundred private citizens and interested individuals.

Each of the comments received was reviewed and analyzed carefully. The following is a summary of the significant comments and the Agency's response to those comments.

(1) It was suggested that the definition of a feedlot and certain synonyms or common designations describing various types of livestock operations be clarified as to the specific nature of crop growth in a non-feedlot condition and specific operations covered.

The proposed definition of a feedlot provided that if crop production could be or was sustained in the area where livestock were housed or penned, the livestock holding area would not constitute a feedlot. The definition in the final regulation has been modified to show that if either crop or forage growth or production is sustained, the operation would not constitute a feedlot. Therefore, when conditions exist where the density of livestock in any given area precluded the growth or production of crops or forage, and the other elements of the definition were met, those condi-

tions would describe a feedlot. Substantial numbers of operations which may constitute a feedlot in the strict sense, particularly smaller facilities, may consider management options which dispersed or decentralized livestock in order to provide crop or forage growth. Under the latter circumstances the combined effect of soil and vegetative assimilation of manure and the lower rate of manure deposition per unit area could reasonably be expected to preclude any significant pollution problem.

Certain generic words or descriptive terminology such as "dry lot", "hard" surface, or others frequently used to designate livestock operations but not included in the proposed regulation have been incorporated in the final regulation.

(2) Comments and suggestions were made regarding the differences between, and impact of, chronic rainfall upon any runoff control facility. The primary point was that a series of rainfall events with or without coincident snowmelt were the major cause of a discharge and that controlling a given storm event would not necessarily preclude a discharge from chronic precipitation even if all possible means of prevention were used.

Several suggestions were that it was inappropriate for the regulations to refer only to controlling discharges from a given storm event, in that a series of rainfall events or snowmelt were the major causes of discharges from feedlots.

These comments are generally valid to the extent that chronic rainfall or snowmelt are the primary cause of discharges in many areas. The final regulations make it clear that exceptions to the "no discharge" standard are not limited to those occasioned by a given storm event, but include discharges attributable to the cumulative effect of rainfall or snowmelt over a period of time.

(3) A number of comments requested clarification of whether the proposed regulation prescribed performance standards or design criteria to the extent that it contained exceptions for excessive rainfall.

The exceptions in §§ 412.12(b), 412.13(b), 412.15(b) and 412.23(b) provided recognition of the fact that the basic technology for preventing discharges from feedlots requires containment facilities. Containment facilities have physical limitations on their capacity to compensate for unusual rainfall, resulting in occasional unavoidable overflows.

It is not the intent of EPA in this regulation to establish a design standard for control facilities for feedlots. The regulation promulgated below is a performance standard of "no discharge" subject to an exception for discharges attributable to unusual rainfall events. There are numerous types of control facilities which can be utilized to qualify for the exception (e.g., impoundment ponds, diversion ditches, terraces etc.) and operators have broad flexibility to select their control facility in the light of local hydrologic data, soil conditions, weather conditions, waste utilization plans and other information.

Similarly, EPA does not intend to establish operating criteria for feedlot waste control facilities. Rather, this regulation establishes a performance standard with an exception and, to qualify for this exception, the operator is free to choose any method of operation, providing the method of operation causes the facility to contain process generated waste waters and usual rainfall events. Such methods may normally include removal of the stored waste waters for purposes of irrigation or other land utilization of the waste in accordance with accepted agricultural practices which prevent discharge to navigable waters, and maintain the facility in a state of availability to contain runoff from recurring or subsequent rainfalls.

(4) The point was made that the 25 year, 24 hour storm requirement as a basis for the limitation under best available technology was unnecessary and unwarranted.

The technology is the same for controlling precipitation runoff, regardless of the nature of the precipitation period. In the feedlots industry, a variable degree of effluent control is already manifest. Whereas several States and areas have implemented controls on the basis of a 10 year, 24 hour storm, many areas already require or recommend somewhat higher control levels. For example a 25 year, 24 hour storm or long-term (60 days or more) precipitation and runoff storage serve as the basic control requirement in many areas. The increased control requirements are found in arid or semi arid areas such as the State of Texas and in humid areas such as the States of Minnesota, Illinois, and Indiana. In some instances where the 10 year storm criteria prevails, site conditions or management decisions impact upon higher degree of control (for example, the desire to minimize impoundment dewatering requirements by increasing design capacities).

As a result, it is clear that the higher control requirements are in place, available and economically achievable for the feedlots industry. Furthermore, existing facilities will generally be able to expand present waste water control systems in the future to account for increased control levels without undue difficulty.

(5) The vast majority of comments and subsequent discussions within the agency centered on the issue that small farms, which included small feedlots, should be excluded from the requirements of the proposed regulation.

From available information, there is substantial evidence that large feedlots can institute process waste water controls relating to the runoff from a 10 year, 24 hour storm and other process discharges such as the flushing of pens or manure pits without any undue economic hardship. For the present, the thrust of the final regulations is therefore directed at those operations as large or larger than the specified sizes, i.e., 1000 beef cattle, 2500 swine, 700 dairy cattle, and others as indicated. With respect to operations smaller than these,

the Agency is now reviewing a substantial amount of information submitted during the public comment period to ascertain detailed economic impact information and possible further segmentation of the industry on the basis of size. Subsequent to the completion of this analysis, effluent limitations applicable to smaller operations will be proposed for public comment.

(6) It was suggested that dewatering periods (or frequency for emptying impoundments or other storage facilities) be specifically indicated with regard to runoff control.

As is discussed in the Development Document, the variability in state and local requirements, individual site conditions, and choice of runoff control procedures make detailed specification of dewatering requirements untenable. In addition to problems of reliability in predicting the probability of a discharge, with or without any assumption on dewatering, the fact is that runoff controls may be overdesigned to preclude all but the most infrequent dewatering activities. On the other hand, dewatering of runoff control impoundments can often be successfully related to crop or soil moisture needs and not on the sole basis of keeping the impoundment "pumped down" or empty purely for pollution control. However, as is discussed in comment (3), any process waste water control facility is to be operated in a manner to help assure that discharges from recurring runoff are minimized. The conditions and management options for any given site must be used to ascertain whether the chosen runoff controls are "small" with frequent dewatering; "large" with infrequent or no dewatering; require an emergency pump-out capability or other option. Assigning specific dewatering requirements unnecessarily and often incorrectly restricts the flexibility required to properly control runoff for the vast variety of sites which exist throughout the country.

(7) The point was raised that so-called "order-buyer" operations (which involve short term holding of feeder cattle for subsequent transfer to long term feeding at feedlots) auction yards, stockyards or related facilities were not specifically covered by the regulation.

Within the definition of a feedlot in the proposed regulation and final regulation, criteria such as concentration of animals, crop or forage growth or production being sustained, and feeding at the place of confinement (no time frame is stipulated) are clearly satisfied by the types of operations in question. For the most part these operations are open lots or partially covered lots which often handle a mixture of animal types; consequently, they may be affected by either the size requirements for individual animal types or the combination criteria stipulated in the final regulation.

(8) Suggestions with respect to the duck growing subcategories related to the proposed regulation requiring operations to achieve zero discharge by 1983 and the propriety of meeting this requirement or

even achieving zero discharge (subject to the storm overflow exemptions discussed in comment (2) above) as early as 1977.

As is discussed in the Development Document and the preamble to the proposed regulations, the duck growing subcategories are already accomplishing rather successful effluent control using biological treatment. The treatment systems are used primarily for the "wet" lot operations, but "dry" lots also use treatment. The latter type of production facility generally utilizes water only for drinking and thus eliminates swimming areas (wet lots) from the production process. Nevertheless, the drinking water is usually contaminated to some degree and treatment is required. For the dry lot operations, only one is known to achieve no discharge (using irrigation) and one is planning to install a similar system soon. As a consequence, best practicable technology may be defined only on the basis of the efficient biological treatment systems. Also, the process changes required to shift from wet lot to dry lot operations fall only within the scope of best available technology for existing sources and best available demonstrated technology for new sources. Therefore, in the opinion of EPA, the proposed regulations for duck operations were defined appropriately from the available data and these regulations are set forth in final form.

(b) Revision of the proposed regulation prior to promulgation.

As a result of public comments and continuing review and evaluation of the proposed regulations by the EPA, the following changes have been made in the regulation.

(1) The applicability of limitations for existing sources and standards of performance for new sources for Subpart A, § 412.10 has been clarified to reflect that specific sizes of operations for each animal type are affected by the limitations: (as large or larger than) 1000 slaughter steers and heifers, 700 mature dairy cattle; 2500 swine; and other sizes as defined.

(2) The applicability of limitations for existing sources and standards of performance for new sources for Subpart B, § 412.20 has been clarified to reflect applicability to the duck subcategories of sizes of 5000 or more ducks.

(3) The definition of a feedlot in Subparts A and B has been slightly amplified to recognize that either crop or forage growth or production are to be sustained in an area of confined or concentrated animal housing if that area is not to be classified as a feedlot.

(4) Several specialized definitions common to both Subparts A and B, §§ 412.11 and 412.21 respectively, have been clarified, and changed or have been added to help explain the meaning and intent of the limitations.

Definitions for "process waste water" and certain subcategory designations have been modified; definitions for "process generated waste water" and "10 year, 24 hour or 25 year, 24 hour" rainfall events have been added.

## RULES AND REGULATIONS

(5) Even though the specific reference to rainfall event (whether 10 year, 24 hour or 25 year, 24 hour) has not been changed, the language of the limitations for existing sources and standards of performance for new sources has been substantially rewritten to show that (i) the expected level of performance is no discharge of process waste water pollutants to navigable waters, and (ii) the overflow from those system, caused by excessive chronic or catastrophic precipitation may be discharged without regard to pollutants in, or volume of, the overflow.

(c) Section 304(b)(1)(B) of the Act provides for "guidelines" to implement the uniform national standards of section 301(b)(1)(A). Thus Congress recognized that some flexibility was necessary in order to take into account the complexity of the industrial world with respect to the practicability of pollution control technology. In conformity with the Congressional intent and in recognition of the possible failure of these regulations to account for all factors bearing on the practicability of control technology, it was concluded that some provision was needed to authorize flexibility in the strict application of the limitations contained in the regulation where required by special circumstances applicable to individual dischargers. Accordingly, a provision allowing flexibility in the application of the limitations representing best practicable control technology currently available has been added to each subpart, to account for special circumstances that may not have been adequately accounted for when these regulations were developed.

(c) Economic impact.

Even though the proposed regulations affected all sizes of operations, the above listed changes will not significantly affect the conclusions of the economic study of the proposed regulations. The larger feedlots to which the final regulations apply are the least impacted segment regarding costs of treatment alternatives described in the Development Document and the proposed regulations. With respect to operations of smaller capacities than stipulated in the regulation, data submitted during the comment period is being incorporated into further analyses of economic impact of the limitations upon these sizes. Pending results of these analyses, effluent limitations affecting smaller operations will be proposed for public comment at a later date.

(d) Cost-benefit analysis.

The detrimental effects of the constituents of waste waters now discharged by point sources within the feedlots point source category are discussed in Section VI of the report entitled "Development Document for Effluent Limitations Guidelines for the Feedlots Point Source Category" (January 1974). It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's waterways. Nevertheless, as indicated in section VI, the pollutants discharged have substantial and damaging impacts on the quality

of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations guidelines includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in section VIII and in the supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines FEEDLOTS INDUSTRY" (August 1973). Implementing the effluent limitations guidelines will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed facilities in the feedlots industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms, represent a relatively small percentage of the total capital investment in the industry.

(e) Publication of information on processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants.

In conformance with the requirements of Section 304(c), a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Feedlots Point Source Category," has been published and is available for purchase from the Government Printing Office, Washington, D.C. 20401 for a nominal fee.

(f) Final rulemaking.

In consideration of the foregoing, 40 CFR Chapter I, Subchapter N is hereby amended by adding a new Part 412, Feedlots Point Source Category, to read as set forth below. This final regulation is promulgated as set forth below and shall be effective April 15, 1974.

Dated: January 31, 1974.

JOHN QUARLES,  
Acting Administrator.

Subpart A—All Subcategories Except Ducks

- Sec.
- 412.10 Applicability; description of all subcategories except ducks.
- 412.11 Specialized definitions.
- 412.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 412.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 412.14 Reserved.
- 412.15 Standards of performance for new sources.
- 412.16 Pretreatment standards for new sources.

Subpart B—Ducks Subcategory

- Sec.
- 412.17 Applicability; description of the duck subcategory.
- 412.21 Specialized definitions.

Sec.

- 412.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 412.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 412.24 Reserved.
- 412.25 Standards of performance for new sources.
- 412.26 Pretreatment standards for new sources.

Subpart A—All Subcategories Except Ducks

§ 412.10 Applicability; description of all subcategories except ducks.

The provisions of this subpart are applicable to discharges of pollutants resulting from feedlots in the following subcategories: Beef cattle—open lots; beef cattle—housed lots; dairy cattle—stall barn (with milk room); dairy—free stall barn (with milking center); dairy—cowyards (with milking center); swine—open dirt or pasture lots; swine—housed, slotted floor; swine—solid concrete floor, open or housed lot; sheep—open lots; sheep—housed lots; horses—stables (race tracks); chickens—broilers, housed; chickens—layers (egg production), housed; chickens—layer breeding or replacement stock; housed; turkeys—open lots; turkeys—housed; and for those feedlot operations within these subcategories as large or larger than the capacities given below:

1,000 slaughter steers and heifers; 700 mature dairy cattle (whether milkers or dry cows); 2,500 swine weighing over 55 pounds; 10,000 sheep; 55,000 turkeys; 100,000 laying hens or broilers when facility has unlimited continuous flow watering systems; 30,000 laying hens or broilers when facility has liquid manure handling system; 500 horses; and 1,000 animal units from a combination of slaughter steers and heifers, mature dairy cattle, swine over 55 pounds and sheep.

§ 412.11 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "feedlot" shall mean a concentrated, confined animal or poultry growing operation for meat, milk or egg production, or stabling, in pens or houses wherein the animals or poultry are fed at the place of confinement and crop or forage growth or production is not sustained in the area of confinement.

(c) The term "process waste water" shall mean any process generated waste water and any precipitation (rain or snow) which comes into contact with any manure, litter or bedding, or any other raw material or intermediate or final material or product used in or resulting from the production of animals or poultry or direct products (e.g. milk, eggs).

(d) The term "process generated waste water" shall mean water directly or indirectly used in the operation of a feedlot for any or all of the following: Spillage or overflow from animal or poultry

watering systems; washing, cleaning or flushing pens, barns, manure pits or other feedlot facilities; direct contact swimming, washing or spray cooling of animals; and dust control.

(e) The terms "10 year, 24 hour rainfall event" and "25 year, 24 hour rainfall event" shall mean a rainfall event with a probable recurrence interval of once in ten years or twenty-five years, respectively, as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States", May 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

(f) The term "open lot" shall mean pens or similar confinement areas with dirt, or concrete (or paved or hard) surfaces wherein animals or poultry are substantially or entirely exposed to the outside environment except for possible small portions affording some protection by windbreaks, small shed-type shade areas. For the purposes hereof the term "open lot" is synonymous with the terms "cowyard" (dairy cattle), "pasture lot" (swine), and "dirt lot" (swine, sheep or turkeys), "dry lot" (swine, cattle, sheep, turkeys) which are terms widely used in the industry.

(g) The term "housed lot" shall mean totally roofed buildings which may be open or completely enclosed on the sides wherein animals or poultry are housed over solid concrete or dirt floors, slotted (partially open) floors over pits or manure collection areas in pens, stalls or cages, with or without bedding materials and mechanical ventilation. For the purposes hereof, the term "housed lot" is synonymous with the terms "slotted floor" buildings (swine, beef), "barn" (dairy cattle) or "stable" (horses), "houses" (turkeys, chickens), which are terms widely used in the industry.

(h) The term "stall barn" shall mean specialized facilities wherein producing cows and replacement cows are milked and fed in a fixed location.

(i) The term "free stall barn" shall mean specialized facilities wherein producing cows are permitted free movement between resting and feeding areas.

(j) The term "milkroom" shall mean milk storage and cooling rooms normally used for stall barn dairies.

(k) The term "milking center" shall mean a separate milking area with storage and cooling facilities adjacent to a free stall barn or cowyard dairy operation.

§ 412.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry sub-

categorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharge effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) Subject to the provisions of paragraph (b) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

(b) Process waste pollutants in the overflow may be discharged to navigable waters whenever rainfall events, either chronic or catastrophic, cause an overflow of process waste water from a facility designed, constructed and operated to contain all process generated waste waters plus the runoff from a 10 year, 24 hour rainfall event for the location of the point source.

§ 412.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

(a) Subject to the provisions of paragraph (b) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

(b) Process waste pollutants in the overflow may be discharged to navigable waters whenever rainfall events, either

chronic or catastrophic, cause an overflow of process waste water from a facility designed, constructed and operated to contain all process generated waste waters plus the runoff from a 25 year, 24 hour rainfall event for the location of the point source.

§ 412.14 [Reserved]

§ 412.15 Standards of performance for new sources.

(a) Subject to the provisions of paragraph (b) of this section, the following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

(b) Process waste pollutants in the overflow may be discharged to navigable waters whenever rainfall events, either chronic or catastrophic, cause an overflow of process waste water from a facility designed, constructed and operated to contain all process generated waste waters plus the runoff from a 25 year, 24 hour rainfall event for the location of the point source.

§ 412.16 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within all subcategories except ducks which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, § 128.133 of this title shall be amended to read as follows:

"In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 412.15; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

#### Subpart B—Ducks Subcategory

§ 412.20 Applicability; description of the ducks subcategory.

The provisions of this subpart are applicable to discharges of pollutants resulting from feedlots for the following subcategories: ducks—dry lot; ducks—wet lot; and for those feedlot operations within these subcategories as large or larger than the capacities given below:

5,000 ducks

§ 412.21 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "feedlot" shall mean a concentrated, confined animal or poultry growing operation for meat, milk or egg production, or stabling, in pens or houses wherein the animals or poultry are fed at the place of confinement and crop or forage production or growth is not sustained in the area of confinement.

(c) The term "process waste water" shall mean any process generated waste water and any precipitation (rain or snow) which comes into contact with any manure, litter or bedding, or any other raw material or intermediate or final material or product used in or resulting from the production of animal or poultry or direct products (e.g. milk, eggs).

(d) The term "process generated waste water" shall mean water directly or indirectly used in the operation of a feedlot for any or all of the following: spillage or overflow from animal or poultry watering systems; washing, cleaning or flushing pens, barns, manure pits or other feedlot facilities; direct contact swimming, washing or spray cooling of animals; and dust control.

(e) The terms "10 year, 24 hour rainfall event" and "25 year, 24 hour rainfall event" shall mean a rainfall event with a probable recurrence interval of once in ten years or twenty-five years, respectively, as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States", May 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

(f) The term "dry lot" shall mean a confinement facility for growing ducks in confinement with a dry litter floor cover and no access to swimming areas.

(g) The term "wet lot" shall mean a confinement facility for raising ducks which is open to the environment with a small portion of shelter area, and with open water runs and swimming areas to which ducks have free access.

**§ 412.22 Effluent limitations guidelines** representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person

may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic       | Effluent limitations                         |  |
|-------------------------------|--|--|
|                               | Maximum for any one day                      | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (kg/1,000 ducks) |  |  |
| BOD <sub>5</sub> .....        | 1.66   | 0.91   |
| Fecal coliform..              | Not to exceed mpn of 400/100 ml at any time. |  |

| Effluent characteristic        | Effluent limitations                                  |  |
|--------------------------------|---|--|
|                                | Maximum for any one day                               | Average of daily values for 30 consecutive days shall not exceed |
| English units (lb/1,000 ducks) |   |  |
| BOD <sub>5</sub> .....         | 3.66  | 2.00   |
| Fecal coliform..               | See above (not typically expressed in English units). |  |

**§ 412.23 Effluent limitations guidelines** representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

(a) Subject to the provisions of paragraph (b) of this section, the following limitations establish the quantity or quality of pollutants or pollutant prop-

erties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

(b) Process waste pollutants in the overflow may be discharged to navigable waters whenever rainfall events, either chronic or catastrophic, cause an overflow of process waste water from a facility designed, constructed and operated to contain all process generated waste waters plus the runoff from a 25 year, 24 hour rainfall event for the location of the point source.

**§ 412.24 [Reserved]**

**§ 412.25 Standards of performance for new sources.**

(a) Subject to the provisions of paragraph (b) of this section, the following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a source subject to the provisions of this subpart: there shall be no discharge of process waste water pollutants to navigable waters.

(b) Process waste pollutants in the overflow may be discharged to navigable waters whenever rainfall events, either chronic or catastrophic, cause an overflow of process waste water from a facility designed, constructed and operated to contain all process generated waste waters plus the runoff from a 25 year, 24 hour rainfall event for the location of the point source.

**§ 412.26 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the ducks subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, § 128.133 of this title shall be amended to read as follows:

"In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 412.15; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standard providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

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## **ENVIRONMENTAL PROTECTION AGENCY**

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### **GLASS MANUFACTURING POINT SOURCE CATEGORIES**

**Effluent Guidelines and Standards**

**Title 40—Protection of the Environment**  
**CHAPTER I—ENVIRONMENTAL**  
**PROTECTION AGENCY**

**SUBCHAPTER N—EFFLUENT GUIDELINES AND**  
**STANDARDS**

**PART 426—GLASS MANUFACTURING**  
**POINT SOURCE CATEGORY**

**Effluent Limitations Guidelines**

On October 17, 1973 notice was published in the *FEDERAL REGISTER*, (38 FR 28902) that the Environmental Protection Agency (EPA or Agency) was proposing effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the sheet glass manufacturing, rolled glass manufacturing, plate glass manufacturing, float glass manufacturing, automotive glass tempering and automotive glass laminating subcategories of the glass manufacturing category of point sources. The purpose of this notice is to establish final effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources in the glass manufacturing category of point sources, by amending 40 CFR Chapter I, Subchapter N, Part 426 to add new subparts B, C, D, E, F and G. This final rulemaking is promulgated pursuant to sections 301, 304 (b) and (c), 306 (b) and (c) and 307(c) of the Federal Water Pollution Control Act, as amended (the Act); 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c) and 1317(c); 86 Stat. 816 et seq.; Pub. L. 92-500. Regulations regarding cooling water intake structures for all categories of point sources under section 316(b) of the Act will be promulgated in 40 CFR Part 402.

In addition, the EPA is simultaneously proposing a separate provision which appears in the proposed rules section of the *FEDERAL REGISTER*, stating the application of the limitations and standards set forth below to users of publicly owned treatment works which are subject to pretreatment standards under section 307(b) of the Act. The basis of that proposed regulation is set forth in the associated notice of proposed rulemaking.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for the sheet glass manufacturing, rolled glass manufacturing, plate glass manufacturing, float glass manufacturing, automotive glass tempering and automotive glass laminating subcategories. In addition, the regulations as proposed were supported by two other documents: (1) the document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the FLAT GLASS Segment of the Glass Manufacturing Point Source Category" (October 1973) and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines, FLAT GLASS INDUSTRY" (August 1973). Both of these

documents were made available to the public and circulated to interested persons at approximately the time of publication of the notice of proposed rulemaking.

Interested persons were invited to participate in the rulemaking by submitting written comments within 30 days from the date of publication. Prior public participation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties was described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response thereto follows.

(a) Summary of comments.

The following responded to the request for comments which was made in the preamble to the proposed regulation: PPG Industries, Inc.; U.S. Water Resources Council; County Sanitation Districts of Los Angeles County; Ford Motor Company; Libbey-Owens-Ford Company; Colorado Department of Natural Resources; and U.S. Department of Health, Education, and Welfare.

Each of the comments received was carefully reviewed and analyzed. The following is a summary of the significant comments and EPA's response to those comments.

(1) Comments were received questioning the applicability of diatomaceous earth filters for suspended solids and oil removal as best available technology. Claims were made that this treatment device is untested and unproven in the subcategories covered, and that the estimated effluent concentrations of less than 5 mg/l are overly optimistic.

EPA has found many applications of this filtration device in other industries and also in a few cases in the glass industry. Sufficient data exists on the operation of diatomaceous earth filters to show that such a device can routinely achieve less than 5 mg/l of suspended solids and oil. In the glass container industry a diatomaceous earth filter is being used at one plant to remove machine oil, and emulsified cutting oils similar to those used in the flat glass industry. Also, it has recently come to light that one plant producing windshields has installed a diatomaceous earth filter on its laminating wash water systems on a pilot basis.

EPA, therefore, finds that the "best available" limitations on the automotive glass tempering and automotive glass laminating subcategories are reasonable and justified based on the proven technology.

(2) Comments have been received that the no discharge limitation for float glass cannot be accomplished for two reasons:

(1) No additional water can be added to the batch make-up as suggested by EPA, and (2) a number of factors mitigate against the disposal of float wash water to cooling towers. EPA has not included limitations of noncontact cooling water, either for once-through cooling water, or for cooling tower blowdown from recycled systems. If float wash water is added to

cooling water systems, the pollutants will be eventually discharged to the environment untreated. The first objection was based on the fact that soda ash is in short supply and liquid caustic must be substituted. All the water needed for dust suppression is thus supplied by the liquid caustic. Moreover, the suggestion by EPA that dry caustic could be substituted is not practical because it would present severe handling and storage problems.

EPA has confirmed the accuracy of these statements. The recommended recycle of wash water to cooling towers would not be appropriate because effluent limitations have not yet been developed for noncontact cooling water. EPA has also determined that the use of dry caustic to allow recycle of waste water to the batch make-up does present the problems mentioned above. Therefore, a new limitation for the float glass subcategory representing the best available technology economically achievable has been established. These limitations can be attained by the use of diatomaceous earth filters as described in the Development Document.

(3) A question was raised in the comment period about the setting of a COD limitation on plate glass manufacturing. The Development Document stated that data on COD was insufficient to determine an accurate COD loading for a typical plant.

The statement above is only correct as it applies to data on the raw waste load. Industry-supplied data, verified by EPA's contractor, was sufficient to establish a COD effluent loading. However, further consideration of the COD limitation by EPA has determined that the removal of suspended solids is sufficient to control wastes from the plate process. The source of COD in plate waste water is the polishing operation and can be attributed to the organic fibers from the polishing pads. No other significant source is known. Since the treatment technology is designed to control suspended solids, these organic fibers should be removed to the same high level as inorganic suspended solids. The new regulations, therefore, do not contain a COD limitation, for the plate glass subcategory.

(4) Commenters were concerned that the limitations would be interpreted as absolute values without consideration of pollutants in incoming waters.

There is evidence to show that COD and BOD<sub>5</sub> values of intake waters are significant when compared to the allowable effluent loadings in the proposed effluent limitations for some parameters. Moreover, in the case of the float glass, automotive glass tempering, and automotive glass laminating subcategories, the COD and BOD<sub>5</sub> parameters can be attributed to the oil present as described in the Development Document.

EPA has decided that with the concentrations of organics normally present in intake waters, plants would find difficulty in meeting the absolute limitations for BOD<sub>5</sub> and COD. Since the organics are essentially oil, the BOD<sub>5</sub> and COD

limitations have been dropped from the proposed limitations for the flat glass industry.

(5) The comments above also apply to the phosphorus limitations in the float glass and automotive glass subcategories. Phosphorus limitations will be difficult to meet if the numbers are considered absolute values and not net over incoming waters.

EPA has decided that the phosphorus limitations for float glass should be retained. These limitations make allowance for phosphorus present in incoming waters and analytical error. During the course of the guidelines development EPA determined that the use of phosphate based detergents was not necessary in float glass washing. The present limitation, therefore, can be met if such detergents are not used.

In the automotive glass lamination subcategory, EPA recognizes that the low concentration of phosphate required by the proposed limitations would be difficult for a plant to achieve if the intake waters are not taken into account. Therefore, an additional allowance has been made in the best practicable and best available limitations to account for any background phosphate. This allowance is approximately 0.5 mg/l for a typical plant.

(6) Comments were received that claimed that an API separator on the rinse water in the laminating subcategory was insufficient to remove oil.

EPA found in the study of the industry that API separators can indeed reach the levels required by the "best practicable" limitations. Difficulties can arise where excess water is used in the rinse operations. However, with the recommended hot water pre-rinse which is totally recycled, water usage will be minimized and the required oil levels achieved in the effluent.

(7) Commentors pointed out that the term "oil" needs a more specific and common definition, and that a previous test procedure published in the FEDERAL REGISTER (38 FR 28758, October 16, 1973) used freon to extract oil from a sample.

To clarify this issue, this promulgated regulation refers to the above FEDERAL REGISTER document and the definition of oil contained therein.

(8) Other comments pointed out that the limitations would require a typical plant to reduce its oil to 5 mg/l in the effluent. It was pointed out that the present analytical method is only accurate to 10 mg/l.

EPA finds the comments to be valid. The limitations in this document have been raised where necessary to an effluent loading that would represent 10 mg/l for a typical plant flow.

(b) Revision of the proposed regulations prior to promulgation.

As a result of public comments, continuing review and evaluation of the proposed regulation by EPA, the following changes have been made in the regulation.

(1) Sections 426.21, 426.31, 426.41, 426.51, 426.61 and 426.71 entitled "Spe-

cialized Definitions," now include references to general definitions, abbreviations, and methods of analysis in 40 CFR Part 401 which reduce the need for some specialized definitions in this regulation.

(2) An important change was made in the "best available" limitations for the float glass subcategory. The proposed no discharge limitation has been changed to permit a discharge. The pollutant levels, however, were determined to be less than that allowed by the "best practicable" limitations, and are attainable by the application of the best available technology economically achievable, use of diatomaceous earth filter.

Originally, EPA was of the opinion that the relatively clean float wash water could be entirely recycled to the batch make-up for dust suppression and to the cooling towers as make-up water. Comments submitted to EPA have shown that in many cases this waste water can not be recycled for sound technical reasons. EPA also reconsidered the recommended recycle of wash water to cooling towers because effluent limitations have not yet been developed for non-contact cooling water and it would not be appropriate to dispose of float wash water in the cooling water system before such limitations are established.

(3) In the plate glass subcategory, the COD limitations have been eliminated but the limitations on TSS remain. EPA has determined that the technology for controlling TSS is more than adequate to control the waste water discharge from the plate process. The COD is contributed by the organic fibers in the polishing pads. These fibers are measured in the TSS analysis, and, therefore, little benefit is to be derived from the setting of a separate COD limitation. As mentioned previously, there is also some question about the lack of COD data in the raw waste from the plate process which further supports the decision to remove COD from the list of effluent limitations for the plate glass subcategory.

(4) The BOD<sub>5</sub> and COD limitations in the float glass, automotive glass tempering and automotive glass laminating subcategories have been eliminated. This was done for two reasons: (1) The limitations do not give any credit for these pollutant parameters in incoming waters. These pollutants are frequently present in intake water concentrations equal to the proposed limitations and could preclude many plants from meeting the limitations. (2) The BOD<sub>5</sub> and COD added by the process is almost entirely oil. The oil limitations in these regulations are sufficient to control this pollutant with proper monitoring.

(5) In the automotive glass laminating subcategory, the phosphorus limitations have been raised to allow for phosphate in intake waters. The low effluent concentrations required by the proposed limitations would be difficult to meet if applied on an absolute basis. The allowable effluent concentrations for a typical plant were thus raised from 5.6 to 6.1 mg/l for the "best practicable" limita-

tions and from 1.0 to 1.5 mg/l for the "best available" limitations.

(6) Valid questions were raised during the comment period about the limits of detection for oil. The proposed limitations were based on a concentration of 5 mg/l for a typical plant. Comments have showed that 10 mg/l of oil is the enforceable limit and the limitations in each of the subcategories containing oil as a parameter (float glass manufacturing, automotive glass tempering and automotive glass laminating) have been raised to reflect this consideration.

(7) Section 304(b)(1)(B) of the Act provides for "guidelines" to implement the uniform national standards of Section 301(b)(1)(A). Thus Congress recognized that some flexibility was necessary in order to take into account the complexity of the industrial world with respect to the practicability of pollution control technology. In conformity with the Congressional intent and in recognition of the possible failure of these regulations to account for all factors bearing on the practicability of control technology, it was concluded that some provision was needed to authorize flexibility in the strict application of the limitations contained in the regulation where required by special circumstances applicable to individual dischargers. Accordingly, a provision allowing flexibility in the application of the limitations representing best practicable control technology currently available has been added to each subpart, to account for special circumstances that may not have been adequately accounted for when these regulations were developed.

(c) Economic impact.

The changes to the regulations will not affect the results of the economic analysis prepared for the proposed regulation.

(d) Cost-benefit analysis.

The detrimental effects of the constituents of waste water now discharged by point sources within the flat glass segment of the glass manufacturing point source category are discussed in Section VI of the report entitled "Development Document for Effluent Limitations Guidelines for the FLAT GLASS Segment Manufacturing Point Source Category" (February, 1974). It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's waterways. Nevertheless, as indicated in Section VI, the pollutants discharged have substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations guidelines includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in Section VIII and in the supplementary report entitled "Economic

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**Analysis of Proposed Effluent Guidelines, FLAT GLASS INDUSTRY** (September, 1973). Implementing the effluent limitations guidelines will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed plants in the flat glass industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms, represent a relatively small percentage of the total capital investment in the industry.

(e) Publication of information on processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants.

In conformance with the requirements of section 304(c) of the Act, a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the FLAT GLASS Segment of the Glass Manufacturing Point Source Category," has been published and is available for purchase from the Government Printing Office, Washington, D.C. 20401 for a nominal fee.

(f) Final rulemaking.

In consideration of the foregoing, 40 CFR Chapter I, Subchapter N, Part 426 is hereby amended by adding Subparts B through G to read as set forth below. This final regulation is promulgated as set forth below and shall be effective April 15, 1974.

Dated: January 31, 1974.

JOHN QUARLES,  
Acting Administrator.

**Subpart B—Sheet Glass Manufacturing Subcategory**

- Sec. 426.20 Applicability; description of the sheet glass manufacturing subcategory.
- 426.21 Specialized definitions.
- 426.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 426.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 426.24 Reserved.
- 426.25 Standards of performance for new sources.
- 426.26 Pretreatment standards for new sources.

**Subpart C—Rolled Glass Manufacturing Subcategory**

- 426.30 Applicability; description of the rolled glass manufacturing subcategory.
- 426.31 Specialized definitions.
- 426.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 426.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

- Sec. 426.24 Reserved.
- 426.35 Standards of performance for new sources.
- 426.36 Pretreatment standards for new sources.

**Subpart D—Plate Glass Manufacturing Subcategory**

- 426.40 Applicability; description of the plate glass manufacturing subcategory.
- 426.41 Specialized definitions.
- 426.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 426.43 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 426.44 Reserved.
- 426.45 Standards of performance for new sources.
- 426.46 Pretreatment standards for new sources.

**Subpart E—Float Glass Manufacturing Subcategory**

- 426.50 Applicability; description of the float glass manufacturing subcategory.
- 426.51 Specialized definitions.
- 426.52 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 426.53 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 426.54 Reserved.
- 426.55 Standards of performance for new sources.
- 426.56 Pretreatment standards for new sources.

**Subpart F—Automotive Glass Tempering Subcategory**

- 426.60 Applicability; description of the automotive glass tempering subcategory.
- 426.61 Specialized definitions.
- 426.62 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 426.63 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 426.64 Reserved.
- 426.65 Standards of performance for new sources.
- 426.66 Pretreatment standards for new sources.

**Subpart G—Automotive Glass Laminating Subcategory**

- 426.70 Applicability; description of the automotive glass laminating subcategory.
- 426.71 Specialized definitions.
- 426.72 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 426.73 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

- Sec. 426.74 Reserved.
- 426.75 Standards of performance for new sources.
- 426.76 Pretreatment standards for new sources.

**Subpart H—Sheet Glass Manufacturing Subcategory**

- § 426.20 Applicability; description of the sheet glass manufacturing subcategory.

The provisions of this subpart are applicable to discharges of pollutants resulting from the process in which several mineral ingredients (sand, soda ash, limestone, dolomite, cullet and other ingredients) are mixed, melted in a furnace, and drawn vertically from a melting tank to form sheet glass.

**§ 426.21 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "cullet" shall mean any broken glass generated in the manufacturing process.

**§ 426.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove

such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: there shall be no discharge of process waste water pollutants to navigable waters.

§ 426.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

§ 426.24 [Reserved]

§ 426.25 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

§ 426.26 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the sheet glass manufacturing subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 426.25; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

**Subpart C—Rolled Glass Manufacturing Subcategory**

§ 426.30 Applicability; description of the rolled glass manufacturing subcategory.

The provisions of this subpart are applicable to discharges of pollutants resulting from the process in which several

mineral ingredients (sand, soda ash, limestone, dolomite, cullet, and other ingredients) are mixed, melted in a furnace, and cooled by rollers to form rolled glass.

§ 426.31 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "cullet" shall mean any broken glass generated in the manufacturing process.

§ 426.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

§ 426.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

§ 426.34 [Reserved]

§ 426.35 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: there shall be no discharge of process waste water pollutants to navigable waters.

§ 426.36 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the rolled glass manufacturing subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

"In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 426.35; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

**Subpart D—Plate Glass Manufacturing Subcategory**

§ 426.40 Applicability; description of the plate glass manufacturing subcategory.

The provisions of this subpart are applicable to discharges of pollutants resulting from the process in which several mineral ingredients (sand, soda ash, limestone, dolomite, cullet and other ingredients) are melted in a furnace, pressed between rollers, and finally ground and polished to form plate glass.

§ 426.41 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

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(b) The term "cullet" shall mean any broken glass generated in the manufacturing process.

§ 426.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would effect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for the facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic           | Effluent limitations         |  |
|-----------------------------------|------------------------------|--|
|                                   | Maximum for any one day      | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (kg/kg of product)   |                              |  |
| TSS                               | 2.76                         | 1.38   |
| pH                                | Within the range 6.0 to 9.0. |  |
| English units (lb/ton of product) |                              |  |
| TSS                               | 6.02                         | 2.76   |
| pH                                | Within the range 6.0 to 9.0. |  |

§ 426.43 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent characteristic           | Effluent limitations         |  |
|-----------------------------------|------------------------------|--|
|                                   | Maximum for any one day      | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (kg/kg of product)   |                              |  |
| TSS.....                          | 0.045                        | 0.045  |
| pH.....                           | Within the range 6.0 to 9.0. |  |
| English units (lb/ton of product) |                              |  |
| TSS.....                          | 0.090                        | 0.090  |
| pH.....                           | Within the range 6.0 to 9.0. |  |

§ 426.44 [Reserved]

§ 426.45 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: there shall be no discharge of process waste water pollutants to navigable waters.

§ 426.46 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the plate glass manufacturing subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 426.45; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

#### Subpart E—Float Glass Manufacturing Subcategory

§ 426.50 Applicability: description of the float glass manufacturing subcategory.

The provisions of this subpart are applicable to discharges of pollutants re-

sulting from the process in which several mineral ingredients (sand, soda ash, limestone, dolomite, cullet, and other ingredients) are mixed, melted in a furnace, and floated on a molten tin bath to produce float glass.

§ 426.51 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

§ 426.52 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent Limitations              |                              |  |
|-----------------------------------|------------------------------|--|
| Effluent characteristic           | Maximum for any day          | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (g/kg of product)    |                              |  |
| TSS.....                          | 2.00                         | 2.00   |
| Oil.....                          | 1.40                         | 1.40   |
| Phosphorus.....                   | .05                          | .05  |
| pH.....                           | Within the range 6.0 to 9.0. |  |
| English units (lb/ton of product) |                              |  |
| TSS.....                          | 0.0040                       | 0.0040   |
| Oil.....                          | .0028                        | .0028  |
| Phosphorus.....                   | .0001                        | .0001  |
| pH.....                           | Within the range 6.0 to 9.0. |  |

**§ 426.53 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent limitations              |                              |  |
|-----------------------------------|------------------------------|--|
| Effluent characteristic           | Maximum for any one day      | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (g/kg of product)    |                              |  |
| TSS.....                          | 0.70                         | 0.70   |
| Oil.....                          | 1.40                         | 1.40   |
| Phosphorus.....                   | .05                          | .05  |
| pH.....                           | Within the range 6.0 to 9.0. |  |
| English units (lb/ton of product) |                              |  |
| TSS.....                          | 0.0014                       | 0.0014   |
| Oil.....                          | .0028                        | .0028  |
| Phosphorus.....                   | .0001                        | .0001  |
| pH.....                           | Within the range 6.0 to 9.0. |  |

**§ 426.54 [Reserved]**

**§ 426.55 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

| Effluent limitations              |                              |  |
|-----------------------------------|------------------------------|--|
| Effluent characteristic           | Maximum for any one day      | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (g/kg of product)    |                              |  |
| TSS.....                          | 0.70                         | 0.70   |
| Oil.....                          | 1.40                         | 1.40   |
| Phosphorus.....                   | .05                          | .05  |
| pH.....                           | Within the range 6.0 to 9.0. |  |
| English units (lb/ton of product) |                              |  |
| TSS.....                          | 0.0014                       | 0.0014   |
| Oil.....                          | .0028                        | .0028  |
| Phosphorus.....                   | .0001                        | .0001  |
| pH.....                           | Within the range 6.0 to 9.0. |  |

**§ 426.56 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the float glass manufacturing subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

"In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 426.55 provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

**Subpart F—Automotive Glass Tempering Subcategory**

**§ 426.60 Applicability; description of the automotive glass tempering subcategory.**

The provisions of this subpart are applicable to discharges of pollutants resulting from the processes in which glass is cut and then passed through a series of processes that grind and polish the edges, bend the glass, and then temper the glass to produce side and back windows for automobiles.

**§ 426.61 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "tempering" shall mean the process whereby glass is heated near the melting point and then rapidly cooled to increase its mechanical and thermal endurance.

**§ 426.62 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

(a) In establishing the limitation set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue

NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent limitations                      |                              |  |
|---|------------------------------|--|
| Effluent characteristic                   | Maximum for any one day      | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (g/sq m of product)          |                              |  |
| TSS.....                                  | 1.95                         | 1.22   |
| Oil.....                                  | .64                          | .64  |
| pH.....                                   | Within the range 6.0 to 9.0. |  |
| English units (lb/1,000 sq ft of product) |                              |  |
| TSS.....                                  | 0.40                         | 0.26   |
| Oil.....                                  | .13                          | .13  |
| pH.....                                   | Within the range 6.0 to 9.0. |  |

**§ 426.63 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent limitations                      |                              |  |
|---|------------------------------|--|
| Effluent characteristic                   | Maximum for any one day      | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (g/sq in of product)         |                              |  |
| TSS.....                                  | 0.24                         | 0.24   |
| Oil.....                                  | .49                          | .49  |
| pH.....                                   | Within the range 6.0 to 9.0. |  |
| English units (lb/1,000 sq ft of product) |                              |  |
| TSS.....                                  | 0.05                         | 0.05   |
| Oil.....                                  | .10                          | .10  |
| pH.....                                   | Within the range 6.0 to 9.0. |  |

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## § 426.64 [Reserved]

## § 426.65 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

| Effluent characteristic                   | Effluent limitations         |  |
|---|------------------------------|--|
|   | Maximum for any one day      | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (g/sq m of product)          |                              |  |
| TSS.....                                  | 0.24                         | 0.24   |
| Oil.....                                  | .49                          | .49  |
| pH.....                                   | Within the range 6.0 to 9.0. |  |
| English units (lb/1,000 sq ft of product) |                              |  |
| TSS.....                                  | 0.05                         | 0.05   |
| Oil.....                                  | .10                          | .10  |
| pH.....                                   | Within the range 6.0 to 9.0. |  |

## § 426.66 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the automotive glass tempering subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

"In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 426.65; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

## Subpart G—Automotive Glass Laminating Subcategory

## § 126.70 Applicability: description of the automotive glass laminating subcategory.

The provisions of this subpart are applicable to discharges of pollutants resulting from the processes which laminate a plastic sheet between two layers of glass, and which prepare the glass for lamination such as cutting, bending and washing, to produce automobile windshields.

## § 126.71 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

## § 426.72 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic                   | Effluent limitations         |  |
|---|------------------------------|--|
|   | Maximum for any one day      | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (g/sq m of product)          |                              |  |
| TSS                                       | 4.40                         | 4.40   |
| Oil                                       | 1.76                         | 1.76   |
| Phosphorus                                | 1.07                         | 1.07   |
| pH  | Within the range 6.0 to 9.0. |  |
| English units (lb/1,000 sq ft of product) |                              |  |
| TSS                                       | 0.90                         | 0.90   |
| Oil                                       | .36                          | .36  |
| Phosphorus                                | .22                          | .22  |
| pH  | Within the range 6.0 to 9.0. |  |

## § 426.73 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent characteristic                   | Effluent limitations         |  |
|---|------------------------------|--|
|   | Maximum for any one day      | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (g/sq m of products)         |                              |  |
| TSS.....                                  | 0.88                         | 0.88   |
| Oil.....                                  | 1.76                         | 1.76   |
| Phosphorus.....                           | .30                          | .30  |
| pH.....                                   | Within the range 6.0 to 9.0. |  |
| English units (lb/1,000 sq ft of product) |                              |  |
| TSS.....                                  | 0.18                         | 0.18   |
| Oil.....                                  | .36                          | .36  |
| Phosphorus.....                           | .06                          | .06  |
| pH.....                                   | Within the range 6.0 to 9.0. |  |

## § 426.74 [Reserved]

## § 426.75 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new point source subject to the provisions of this subpart:

| Effluent characteristic                | Effluent limitations         |  |
|--|------------------------------|--|
|  | Maximum for any one day      | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (q/sq m of product)       |                              |  |
| TSS.....                               | 0.88                         | 0.88   |
| Oil.....                               | 1.76                         | 1.76   |
| Phosphorus.....                        | .30                          | .30  |
| pH.....                                | Within the range 6.0 to 9.0. |  |
| English units (lb/1,000 lb of product) |                              |  |
| TSS.....                               | 0.18                         | 0.18   |
| Oil.....                               | .36                          | .36  |
| Phosphorus.....                        | .06                          | .06  |
| pH.....                                | Within the range 6.0 to 9.0. |  |

## § 426.76 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the automotive glass laminating subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard

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for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 426.75; provided that, if the publicly owned treatment works which

receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the

case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

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PART II



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## **ENVIRONMENTAL PROTECTION AGENCY**

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### **PHOSPHATE MANUFACTURING POINT SOURCE CATEGORY**

Effluent Guidelines and Standards

**Title 40—Protection of the Environment**  
**CHAPTER I—ENVIRONMENTAL**  
**PROTECTION AGENCY**

**SUBCHAPTER N—EFFLUENT GUIDELINES AND STANDARDS**

**PART 422—PHOSPHATE MANUFACTURING POINT SOURCE CATEGORY**

**Effluent Limitation Guidelines**

On September 7, 1973 notice was published in the *FEDERAL REGISTER* (38 FR 24470), that the Environmental Protection Agency (EPA or Agency) was proposing effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the phosphorus producing, phosphorous consuming and phosphate subcategories of the phosphate manufacturing category of point sources. The purpose of this notice is to establish final effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources in the phosphate manufacturing category of point sources, by amending 40 CFR Chapter I, Subchapter N, to add a new Part 422. This final rulemaking is promulgated pursuant to sections 301, 304 (b) and (c), 306 (b) and (c) and 307(c) of the Federal Water-Pollution Control Act, as amended, (the Act); 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c) and 1317(c) 86 Stat. 816 et seq.; Pub. L. 92-500. Regulations regarding cooling water intake structures for all categories of point sources under section 316(b) of the Act will be promulgated in 40 CFR Part 402.

In addition, the EPA is simultaneously proposing a separate provision which appears in the proposed rules section of the *FEDERAL REGISTER*, stating the application of the limitations and standards set forth below to users of publicly owned treatment works which are subject to pretreatment standards under section 307(b) of the Act. The basis of that proposed regulation is set forth in the associated notice of proposed rulemaking.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for the phosphate manufacturing category. In addition, the regulations as proposed were supported by two other documents: (1) The document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the PHOSPHOROUS DERIVED CHEMICALS Segment of the Phosphate Manufacturing Point Source Category" (August 1973) and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines, The Industrial Phosphate Industry" (August 1973). Both of these documents were made available to the public and circulated to interested persons at approximately the time of publication of the notice of proposed rulemaking.

Interested persons were invited to

participate in the rulemaking by submitting written comments within 30 days from the date of publication. Prior public participation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties were described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response thereto follows.

The regulation as promulgated contains some significant departures from the proposed regulation. The following discussion outlines the reasons why these changes were made and why other suggested changes were not made.

(a) Summary of comments.

The following responded to the request for written comments contained in the preamble to the proposed regulation: Mobil Oil Corporation; FMC Corporation; Manufacturing Chemists Association; Stauffer Chemical Company; Hooker Industrial Chemicals; University of Florida, Institute of Food and Agricultural Sciences; Pasaic Valley Sewerage Commissioners; County Sanitation District of Los Angeles County; U.S. Department of Commerce; and Monsanto Industrial Chemicals Company. Each of the comments received was carefully reviewed and analyzed. The following is a summary of the significant comments and the Agency's response to those comments.

(1) It was stated by several commenters that a no discharge guideline legally could not be applied until 1985.

EPA has determined that in the case of certain subcategories of the phosphate manufacturing category, either the best practicable control technology currently available or the best available technology economically achievable is the total recirculation of process waste water. In section 101(a) (2) of the Act, Congress established as a national goal the elimination of the discharge of pollutants into navigable waters by 1985. However, Congress also set requirements for technology based standards in sections 301, 304(b) and 306 which require the maximum degree of reduction of pollutant discharges prior to 1985, which is consistent with the technical and economic factors to be taken into account under sections 304(b) and 306 of the Act (notably, standards are to be set for 1977 and 1983 compliance, but no regulations are to be promulgated for 1985). The Agency will require the effluent reduction attainable by the best practicable control technology when establishing regulations under section 304(b) of the Act whether that reduction is to some degree of permitted discharge or down to no discharge.

(2) It was commented that best practicable control technology currently available should be based on a large number of plants if not the entire industry.

The Agency defines best practicable control technology currently available to be the average of the best existing performance by plants of various sizes, ages and unit processes within each industrial

category or subcategory. This average is not based upon a broad range of plants within an industrial category or subcategory, but is based upon performance levels achieved by exemplary plants. In those industrial categories where present control and treatment practices are uniformly inadequate, a higher level of control than any currently in place may be required if the technology to achieve such higher level can be practicably applied by July 1, 1977. Thus best practicable control technology currently available may be based on a few, one or no exemplary plants within that industrial category.

(3) Several commenters pointed out that runoff cannot be kept out of treatment ponds in some terrain and that a state of no discharge cannot be met during periods of heavy rainfall.

Treatment ponds can be built or modified to minimize, if not eliminate, intrusion of storm runoff originating outside of the pond retaining walls. Such ponds can also have sufficient free board as to retain rainfall. Those subcategories which employ treatment ponds are water consuming processes which can utilize the captured rainfall. Hence, there should be no need to discharge pond water.

(4) It was mentioned that the recycle of process waste water for food grade calcium phosphates would cause the Food and Drug Administration (FDA) specifications for process water to be violated.

Water is used in the manufacture of food grade calcium phosphates for reasons of transport or homogeneity, but not for purification. Hence the waste water contains the product, but nothing harmful to the product, which is what the FDA specifications are designed to protect.

The problem of segregation of waste waters, water balances, and storm water runoff, however, are sufficiently great that the industry will not be able to achieve total recycle by 1977 and yet meet FDA specifications. A discharge will therefore be allowed after suitable treatment as demonstrated in the Development Document.

(5) It was suggested that a limitation for dissolved solids be dropped for best practicable control technology currently available, since in the concentration range of the constituents involved, technology to achieve the proposed degree of control does not exist.

The limitation proposed was based on the raw waste load and was not intended to force treatment of dissolved solids. The limitation was intended to prohibit additional dissolved solids from being discharged. However, due to variability in the process this limitation may require such treatment. Therefore, the limitation on dissolved solids is replaced by limits on specific dissolved constituents that are considered to be the principal pollutants or characteristics to be controlled.

(6) It was suggested that the limits proposed by the Effluent Standards and Water Quality Information Advisory Committee (ESWQIAC) for the phos-

phorus production subcategory be used.

The ESWQIAC limits include two additional phosphorus plants as exemplary. EPA has since accepted these plants as exhibiting best practicable control technology and has allowed a discharge based upon the data in the Development Document for the treatment capabilities of these plants. Therefore, although the Agency does not agree with the underlying rationale for establishing the ESWQIAC limits, the data in the Development Document does support the specific limits proposed by ESWQIAC.

(7) It was requested that discharges to publicly owned treatment works be allowed.

Pretreatment and discharge of waste waters to publicly owned treatment works from existing sources in the phosphate category are covered in the pretreatment guidelines that are proposed at the time this limitation is promulgated. Comments relating to existing sources should be directed to that regulation. For new sources the Agency considers the process waste water constituents from the phosphorus production and phosphorus consuming subcategories to be incompatible with publicly owned treatment works, and that the treatment technology that has been described in Section VII of the Development Document can achieve no discharge of process waste water pollutants to either navigable waters or to publicly owned treatment works.

The principal process waste water pollutant for the phosphate subcategory is phosphate, which cannot be adequately treated by primary or secondary treatment works. Phosphate, however, is considered to be compatible with publicly owned treatment works designed, constructed and operated to achieve optimal removal of dissolved phosphate, and a discharge to such treatment works will be allowed.

(8) Several commenters considered the capital costs of the model treatment systems to be underestimated and that the economic impact is understated.

The Agency has recalculated, in Section VIII of the Development Document, the cost information on model treatment systems as the result of additional data submitted by industry. The calculated changes do not affect the conclusions of the economic analysis, since the percentage increase in capital cost is not significant.

(9) It was stated that some plants were incorrectly cited as to whether they were achieving no discharge or not.

The necessary qualifiers were added to the descriptions in the Development Document of those plants that were disputed. The changes that were made involved treatment of certain portions of the process waste water and do not substantially affect the overall conclusions of the Development Document.

(10) The general comment was made that zero discharge cannot be achieved for some products.

The Agency has reevaluated the data

and is allowing a discharge for phosphorus and food grade calcium phosphates production for the 1977 limitation for the reasons given in comments (4) and (6). The Agency believes the technology exists to substantiate a no discharge of process waste water limitations for the remaining manufacturing processes.

(11) A range of values was recommended rather than a single value for each parameter.

The Agency considers that the limitations already represent ranges, taking into account differences in process, age, size and other factors. Subcategorization has been done to take these factors into account with different limitations for each subcategory. Within subcategories, exceptions to the limitations have been made for certain manufacturing segments or products, constituting a wider range. Each numerical limitation represents a maximum average of daily values over a given period of time. This in effect represents a range from zero up to the specific limitation. A maximum variation is also given for each maximum average limitation. The Agency considers an upper and lower limitation to be somewhat meaningless since the actual range would be from zero to the upper limitation. Thus, in effect, the argument becomes one of making the EPA limitations less severe, since it has been suggested that the EPA limitations should be the lower limits. The EPA limitations are achievable and currently available.

(12) One commenter stated that there is no correlation of contractor validation data with data or conclusions contained in the Development Document.

Data calculated from samples collected by the contractor were not primarily intended to form the basis of a limitation. The validation data was mainly used by the contractor to determine if existing data can be correctly used to establish limitations. Such a correlation does not appear in the Development Document, but the raw data may be reviewed at the EPA Information Center, Room 227, West Tower, Waterside Mall, Washington, D.C. Only the data that appears in the Development Document was used in formulating the effluent limitations.

(13) It was stated that the evaporation of  $PCl_3$  and  $POCl_3$  process waste waters would require an excessive amount of energy.

The 1983 limitations for the manufacture of  $PCl_3$  and  $POCl_3$  are no discharge of process waste water pollutants which can be accomplished by maximum waste water recycle and evaporation of the blowdown. The Agency believes that sufficient time exists for each plant to be examined by the industry in order to minimize water usage, maximize solar evaporation and thus minimize power usage.

(14) It was pointed out that percolation can occur from waste water ponds.

Infiltration of pond water to ground water cannot be controlled by this regulation. Possible problems have been pointed out in the preamble to the proposed regulation (38 FR 24470) and

methods of correction have been suggested.

(15) The comment was made that no discharge of process waste water pollutants is an impractical limitation because the methods of analysis are not sufficiently sensitive.

Where no discharge of process waste water pollutants is prescribed, model treatment systems are described in the Development Document in which no process waste waters are discharged, hence no process waste water pollutants. For the purpose of determining if process waste water pollutants have contaminated other allowable discharges, this limitation is considered to be the detectable limit of the appropriate analytical method.

(16) It was suggested that no discharge of process waste water pollutants should mean no discharge that would degrade the quality of the receiving stream.

The Act is quite specific in stating the difference between limitations based on treatment technology and limitations handled on a case by case basis in order to insure that water quality standards are attained. The limitations promulgated in this regulation are technology based and independent of water quality standards, as is the intent of the Act.

(17) It was suggested that concentrations (mg/l) should be used with instantaneous maximum values instead of production based limitations.

Production based limitations such as kg of pollutant per kg of product insure that dilution is not practiced. Daily maximum values are also promulgated.

(18) One commenter stated that phosphate limitations for the phosphate industry are unduly restrictive when compared to phosphate limitations for publicly owned treatment works.

The Act establishes separate time tables for industrial and municipal sources. Limitations for phosphate discharges from publicly owned treatment works will be proposed at a later date. However, effluent guidelines for industrial sources are to be based on the best practicable, best available, and best demonstrated technologies for each separate category and separate economic considerations for each category.

(19) One company agreed with the proposed limitation for the manufacture of phosphoric acid, phosphorous trichloride and phosphorous oxychloride.

(20) Another company suggested that no discharge of process waste water pollutants for the manufacture of phosphorus, sodium tripolyphosphate and food grade calcium phosphate is the best available technology rather than the best practicable control technology.

The Agency has reviewed the data and agrees that a discharge resulting from the manufacture of phosphorus and food grade calcium phosphate should be allowed for the 1977 limitations for the reasons listed in comments (4) and (6). However no discharge of process waste water pollutants still qualifies as best practicable control technology currently

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available for the manufacture of sodium tripolyphosphate.

(b) Revision of the proposed regulation prior to promulgation.

As a result of public comments and continuing review and evaluation of the proposed regulation by the EPA, the following changes have been made in the regulation.

(1) Minor adjustments have been made to reflect the fact that an increased number of definitions and analytical methods have been included in 40 CFR 401 and are incorporated by reference in 40 CFR 401 and are incorporated by reference in these subparts.

(2) A discharge will be allowed for the 1977 limitation for the phosphorus production subcategory. This change was made in response to comments (2), (6), (10) and (20) in section (a) above. The limitations are based upon two plants that discharge process waste water from treatment facilities exhibiting exemplary performance.

(3) The total dissolved solids limitations for the manufacture of phosphorus trichloride and phosphorus oxychloride have been replaced with limitations on specific dissolved species. This change was made in response to comment (5) in section (a) above.

(4) A discharge will be allowed for the 1977 limitation for the manufacture of food grade calcium phosphate. The reasons for this change are listed in comments (4), (6) and (20). The limitations are based upon the volume of water used in the process and the technological capability of treating suspended solids and total phosphorus.

(5) Section 304(b)(1)(B) of the Act provides for "guidelines" to implement the uniform national standards of Section 301(b)(1)(A). Thus Congress recognized that some flexibility was necessary in order to take into account the complexity of the industrial world with respect to the practicability of pollution control technology. In conformity with the Congressional intent and in recognition of the possible failure of these regulations to account for all factors bearing on the practicability of control technology, it was concluded that some provision was needed to authorize flexibility in the strict application of the limitations contained in the regulation where required by special circumstances applicable to individual dischargers. Accordingly, a provision allowing flexibility in the application of the limitations representing best practicable control technology currently available has been added to each subpart, to account for special circumstances that may not have been adequately accounted for when these regulations were developed.

(c) Economic impact.

The changes that were made to the proposed regulations for the phosphate category do not substantially affect the initial economic analysis. These changes center about the feasibility of recycling treated process waste water rather than different treatment systems. Additional cost data was received from the phos-

phate manufacturing industry, and a careful review of the costs of alternate treatment technologies was performed. Appropriate upward changes to the cost estimates were made in Section VIII of the Development Document. These changes likewise do not affect the conclusions of the economic impact study, since the cost increases are minimal.

(d) Cost-benefit analysis.

The detrimental effects of the constituents of waste waters now discharged by point sources within the phosphorus production subcategory, phosphorus consuming subcategory and the phosphate subcategory of the phosphate manufacturing point source category are discussed in Section VI of the report entitled "Development Document for Effluent Limitations Guidelines for the PHOSPHORUS DERIVED CHEMICALS Manufacturing Segment of the Phosphate Manufacturing Point Source Category" (February 1974). It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's waterways. Nevertheless, as indicated in Section VI, the pollutants discharged have substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations guidelines includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in Section VIII and in the supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines for the INDUSTRIAL PHOSPHATE INDUSTRY" (August 1973). Implementing the effluent limitations guidelines will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed plants in the phosphate manufacturing industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms, represent a relatively small percentage of the total capital investment in the industry.

(e) Publication of information on processes, procedures or operating methods which result in the elimination or reduction of the discharge of pollutants.

In conformance with the requirements of section 304(c), a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the PHOSPHORUS DERIVED CHEMICALS Segment of the Phosphate Manufacturing Point Source Category," has been published and is available for purchase from the Government Printing Office, Washington, D.C. 20401, for a nominal fee.

(f) Final rulemaking.

In consideration of the foregoing, 40

CFR Chapter I, Subchapter N is hereby amended by adding a new Part 422, Phos-

phate Manufacturing Point Source Category, to read as set forth below. This final regulation is promulgated as set forth below and shall be effective April 22, 1974.

Dated: January 31, 1974.

JOHN QUARLES,  
Acting Administrator.

#### Subpart A—Phosphorus Production Subcategory

- Sec.
- 422.10 Applicability; description of the phosphorus production subcategory.
- 422.11 Specialized definitions.
- 422.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 422.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 422.14 Reserved.
- 422.15 Standards of performance for new sources.
- 422.16 Pretreatment standards for new sources.

#### Subpart B—Phosphorus Consuming Subcategory

- 422.20 Applicability; description of the phosphorus consuming subcategory.
- 422.21 Specialized definitions.
- 422.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 422.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 422.24 Reserved.
- 422.25 Standards of performance for new sources.
- 422.26 Pretreatment standards for new sources.

#### Subpart C—Phosphate Subcategory

- 422.30 Applicability; description of the phosphate subcategory.
- 422.31 Specialized definitions.
- 422.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 422.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 422.34 Reserved.
- 422.35 Standards of performance for new sources.
- 422.36 Pretreatment standards for new sources.

#### Subpart A—Phosphorus Production Subcategory

- § 422.10 Applicability; description of the phosphorus production subcategory.

The provisions of this subpart are applicable to discharges of pollutants re-

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sulting from the production of phosphorus and ferrophosphorus by smelting of phosphate ore.

## § 422.11 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

## § 422.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic                | Effluent limitations         |  |
|--|------------------------------|--|
|  | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (kg/kg of product)        |                              |  |
| TSS.....                               | 1.0                          | 0.5  |
| Total phosphorus.....                  | .30                          | .15  |
| Fluoride.....                          | .10                          | .05  |
| Elemental phosphorus.....              | No detectable quantity.      |  |
| pH.....                                | Within the range 6.0 to 9.0. |  |
| English units (lb/1,000 lb of product) |                              |  |
| TSS.....                               | 1.0                          | 0.5  |
| Total phosphorus.....                  | .30                          | .15  |
| Fluoride.....                          | .10                          | .05  |
| Elemental phosphorus.....              | No detectable quantity.      |  |
| pH.....                                | Within the range 6.0 to 9.0. |  |

## § 422.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

## § 422.14 [Reserved]

## § 422.15 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart; there shall be no discharge of process waste water pollutants to navigable waters.

## § 422.16 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the phosphorus production subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, § 128.133 of this title shall be amended to read as follows:

"In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 422.15; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the

pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

## Subpart B—Phosphorus Consuming Subcategory

## § 422.20 Applicability; description of the phosphorus consuming subcategory.

The provisions of this subpart are applicable to discharges of pollutants resulting from the manufacture of phosphoric acid, phosphorus pentoxide, phosphorus pentasulfide, phosphorus trichloride, and phosphorus oxychloride directly from elemental phosphorus. The production of phosphorus trichloride and phosphorus oxychloride creates waste water pollutants not completely amenable to the procedures utilized for best practicable control technology currently available. The standards set for phosphorus trichloride manufacture and phosphorus oxychloride manufacture, accordingly, must differ from the rest of the subcategory at this level of treatment.

## § 422.21 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

## § 422.22 Effluent limitations guidelines, representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that

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facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) There shall be no discharge of process waste water pollutants to navigable waters from the manufacture of phosphoric acid, phosphorus pentoxide, or phosphorus pentasulfide.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from phosphorus trichloride manufacturing on the basis of production:

| Effluent characteristic   | Effluent limitations                   |   |
|---------------------------|--|---|
|                           | Maximum for any 1 day                  | Average of daily values for 30 consecutive days shall not exceed— |
|                           | Metric units (kg/kg of product)*       |   |
| TSS.....                  | 1.4                                    | 0.7   |
| Total phosphorus.....     | 1.6                                    | 0.8   |
| Arsenic.....              | .0001                                  | .00005  |
| Elemental phosphorus..... | No detectable quantity.                |   |
| pH.....                   | Within the range 6.0 to 9.0.           |   |
|                           | English units (lb/1,000 lb of product) |   |
| TSS.....                  | 1.4                                    | 0.7   |
| Total phosphorus.....     | 1.6                                    | 0.8   |
| Arsenic.....              | .0001                                  | .00005  |
| Elemental phosphorus..... | No detectable quantity.                |   |
| pH.....                   | Within the range 6.0 to 9.0.           |   |

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from phosphorus oxychloride manufacturing on the basis of production:

| Effluent characteristic | Effluent limitations                   |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                  | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kg/kg of product)        |   |
| TSS.....                | 0.3                                    | 0.15  |
| Total phosphorus.....   | .34                                    | .17   |
| pH.....                 | Within the range 6.0 to 9.0.           |   |
|                         | English units (lb/1,000 lb of product) |   |
| TSS.....                | 0.3                                    | 0.15  |
| Total phosphorus.....   | .34                                    | .17   |
| pH.....                 | Within the range 6.0 to 9.0.           |   |

§ 422.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge to navigable waters of process waste water pollutants to resulting from the manufacture of phosphoric acid, phosphorus pentoxide, phosphorus pentasulfide, phosphorus trichloride or phosphorus oxychloride.

§ 422.24 [Reserved]

§ 422.25 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

§ 422.26 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the phosphorus consuming subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, § 128.133 of this title shall be amended to read as follows:

"In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 422.25; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

## Subpart C—Phosphate Subcategory

§ 422.30 Applicability; description of the phosphate subcategory.

The provisions of this subpart are applicable to discharges of pollutants resulting from the manufacture of sodium tripolyphosphate, animal feed grade, calcium phosphate and human food grade calcium phosphate from phosphoric acid. The production of human food grade calcium phosphate creates waste water pollutants not completely amenable to the procedures utilized for best practicable control technology currently available. The standards set for human food grade calcium phosphates accordingly must

differ from the rest of the subcategory at this level of treatment.

§ 422.31 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

§ 422.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharge or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) There shall be no discharge of process waste water pollutants to navigable waters from the manufacture of sodium tripolyphosphate, or animal feed grade calcium phosphate.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from human food grade calcium phosphate manufacturing based on production:

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| Effluent characteristic | Effluent limitations                   |  |
|-------------------------|--|--|
|                         | Maximum for any 1 day                  | Average of daily values for 30 consecutive days shall not exceed |
|                         | Metric units (kg/kg of product)        |  |
| TSS.....                | 0.12                                   | 0.06   |
| Total phosphorus....    | .06                                    | .03  |
| pH.....                 | Within the range 6.0 to 9.0.           |  |
|                         | English units (lb/1,000 lb of product) |  |
| TSS.....                | 0.12                                   | 0.06   |
| Total phosphorus....    | .06                                    | .03  |
| pH.....                 | Within the range 6.0 to 9.0.           |  |

**§ 422.33 Effluent limitations guidelines** representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology

economically achievable: There shall be no discharge to navigable waters of process waste water pollutants resulting from the manufacture of sodium tripolyphosphate, animal feed grade calcium phosphate, or human food grade calcium phosphate.

**§ 422.34 [Reserved]**

**§ 422.35 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

**§ 422.36 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the phosphate subcategory, which is a user of a publicly owned treatment works (and which would be

a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that process waste waters from this subcategory are not considered to be incompatible with publicly owned treatment works designed, constructed and operated to remove dissolved phosphate and, for the purpose of this section, § 128.133 of this title shall be amended to read as follows:

"In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 422.35; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

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WEDNESDAY, FEBRUARY 20, 1974

WASHINGTON, D.C.

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PART III



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## **ENVIRONMENTAL PROTECTION AGENCY**

### **CEMENT MANUFACTURING POINT SOURCE CATEGORY**

**Effluent Guidelines and Standards**

**Title 40—Protection of the Environment**  
**CHAPTER I—ENVIRONMENTAL**  
**PROTECTION AGENCY**

**SUBCHAPTER N—EFFLUENT GUIDELINES AND**  
**STANDARDS**

**PART 411—CEMENT MANUFACTURING**  
**POINT SOURCE CATEGORY**

**Effluent Limitations Guidelines**

On September 7, 1973, notice was published in the *FEDERAL REGISTER* (38 FR 24462), that the Environmental Protection Agency (EPA or Agency) was proposing effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the nonleaching and leaching subcategories of the cement manufacturing category of point sources.

The purpose of this notice is to establish final effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources in the cement manufacturing category of point sources, by amending 40 CFR Chapter I, Subchapter N, to add a new Part 411. This final rulemaking is promulgated pursuant to sections 301, 304 (b) and (c), 306 (b) and (c) and 307(c) of the Federal Water Pollution Control Act, as amended (the Act); 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c) and 1317(c); 86 Stat. 816 et seq.; Pub. L. 92-500. Regulations regarding cooling water intake structures for all categories of point sources under section 316(b) of the Act will be promulgated in 40 CFR Part 402.

In addition, the EPA is simultaneously proposing a separate provision which appears in the proposed rules section of the *FEDERAL REGISTER*, stating the application of the limitations and standards set forth below to users of publicly owned treatment works which are subject to pretreatment standards under section 307(b) of the Act. The basis of that proposed regulation is set forth in the associated notice of proposed rulemaking.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for the nonleaching subcategory and leaching subcategory. In addition, the regulations as proposed were supported by two other documents: (1) The document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Cement Manufacturing Point Source Category" (August 1973) and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines, Cement Industry" (August 1973). Both of these documents were made available to the public and circulated to interested persons at approximately the time of publication of the notice of proposed rulemaking.

Interested persons were invited to participate in the rulemaking by submitting written comments within 30 days from the date of publication. Prior public par-

ticipation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties were described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response there-to follows.

The regulation as promulgated contains minor but significant departures from the proposed regulation. The following discussion outlines the reasons why these changes were made and why other suggested changes were not made.

(a) Summary of comments.

The following responded to the request for written comments contained in the preamble to the proposed regulation: Illinois Environmental Protection Agency; Ideal Cement Company; General Portland, Inc.; Portland Cement Association; Lehigh Portland Cement; Martin Marietta; Department of Commerce—General Counsel; National Gypsum Company—Huron Division; Missouri Portland Cement Company; Mead Corporation and the Department of the Interior.

Each of the comments received was carefully reviewed and analyzed. The following is a summary of the significant comments and the Agency's response to those comments.

(1) The Illinois Environmental Protection Agency inquired about the omission of total dissolved solids limitation for best practicable control technology current available.

The Agency has established limitations which require dissolved solids removal and recycling of waste waters from leaching process streams for best available technology economically achievable. This technology, described in the Development Document, involves the use of electrodialysis of high pH streams to remove salts. Although the technology has been used in the glass industry in Japan, the application of the technology to leaching process streams will require some development by industry and will involve some technical and economic risk but should be achievable by 1983.

(2) Several comments were received relating to the temperature limitation of 3°C and the effect of the thermal discharge on water quality. An analysis of the data received by the Agency and presented in the Development Document shows that almost 50 percent of some 123 plants in the industry, for which definitive thermal data were available, are currently achieving the temperature limitation.

(3) A number of organizations within industry submitted data to support their recommendations that the water to dust ratio used in leaching plants, upon which basis the Agency determined the TSS limitation, should be reexamined. The industry data, together with the previously submitted data and raw data obtained during the field portion of the project, were reexamined and the water to dust ratio and TSS limitations recalculated. The Development Document and the regulation have been changed to reflect

a higher dust to water ratio and TSS limitation for the leaching subcategory.

(4) Three of the organizations commented that they felt that the proposed regulations were based on questionable test data and unwarranted assumptions because of the small amount of testing done by the Agency's contractor and because of the use of RAPP data and industry questionnaires.

The Development Document outlines the basis for the guidelines development. The Agency sought and obtained process and waste water data from many sources which included the Portland Cement Association and individual companies operating plants in the cement industry. The data was analyzed and evaluated by the contractor and the Agency. Prior to the field verification test portion of the project, technical representatives from the industry and the Portland Cement Association were consulted and confirmed that the data possessed by the Agency was representative of the industry and reflected the current technology and operating methods of the industry. The validity of the data and assumptions were further confirmed by field testing at selected cement plants representative of the processes used, geographical location, kiln dust control systems used, age, capacity, water and waste water management practices and other factors as outlined in the Development Document. On the basis of the approach and methodology used to develop the guidelines for the cement industry, the Agency believes that the limitations presented in this regulation realistically reflect the best practicable technology currently available or the best available technology economically achievable.

(5) Two comments were made that the "typical plant" model used for costing treatment alternatives was not representative of any one specific plant in the industry.

The Agency did not intend that the "typical plant" represent any specific plants but rather used the "typical plant" cost estimates upon which to determine an estimate of the total industry costs. The "typical plant" cost data represents a basis from which an individual plant can estimate its costs (upward or downward) to adjust for the plant's operating methods and requirements.

(6) The majority of comments from industry recommended that the Agency clarify what constitutes runoff control from materials storage piles.

Although the proposed regulation indicated that complete retention of runoff from kiln dust piles was required, it is the Agency's intention, as stated in the Development Document, that the runoff from coal, kiln dust and other materials storage piles should be either completely contained or treated to neutralize and control suspended solids prior to discharge to navigable waters through the use of the best practicable control technology currently available. The regulation has been changed (Subpart C) to clarify the Agency's intent.

(7) Several comments indicated that the proposed limitations are inconsistent with those used in the NPDES.

The Agency is aware that some inconsistencies exist, and intends in the future to apply the limitations promulgated in this regulation, rather than those currently used in the NPDES.

(8) Two organizations recommended that the Agency consider subcategorization of the industry based on wet and dry processing and on high and low alkali cement manufacturing raw materials. The Agency did consider the factors of wet and dry processing as part of the subcategorization definition process. As the Development Document indicates, the waste water characteristics from wet and dry process plants are similar enough so as to not warrant separate subcategorization. In addition, the raw materials that are available to some plants, especially limestone and clay, may contain higher-than-average amounts of potassium and sodium. These differences will be reflected in the waste water streams only at leaching plants where the kiln dust comes in contact with the waste stream. Plants where such contact is purposeful rather than incidental have already been considered as a separate subcategory. Thus, the type of raw material is considered with respect to its influence on dust handling techniques, and as such is covered in the two selected subcategories.

(9) One company commented that no provisions were made for upset conditions.

The Agency has identified potential upsets in runoff control as a result of excessive rainfall and has provided for discharges from runoff where the rainfall exceeds the capacity of a facility designed to treat the runoff resulting from a 10 year, 24 hour rainfall event.

(10) The Department of the Interior expressed concern over the failure to evaluate the trend toward the use of short, dry process kilns in the industry.

The Agency believes that the trend in the use of short, dry process kilns should have no influence on the characteristics of the raw waste water from cement plants which would affect the subcategorization or limitations established for the industry.

(11) Several commenters inquired about whether the TSS limitation is a net or gross value depending upon the TSS of the intake water sources. The Agency intends for the TSS limitation to be an absolute value.

(b) Revision of the proposed regulation prior to promulgation.

As a result of public comments and continuing review and evaluation of the proposed regulation by the EPA, the following changes have been made in the regulation.

(1) The TSS Effluent Limitations for Subpart B—Leaching Subcategory § 411.22 and § 411.24 have been increased to 0.4 kg/kg of dust leached (0.4 lb/1000 lb of dust leached). This change results from an evaluation of data submitted by industry and a reexamination of the raw data on leaching plants col-

lected by the Agency's contractor and a recalculation of the dust/water ratio.

(2) Subpart C has been added to the regulation to provide for the discharge to navigable waters of storage pile runoff as an alternative to complete containment. This subpart requires that any storage pile runoff discharged to navigable water must be neutralized to a pH within the range of 6.0 to 9.0 and have a suspended solids concentration of no greater than 50 mg/l. These levels of pH and sedimentation control are readily achievable, even under adverse climatic conditions, through the application of currently available neutralization and sedimentation technology.

(3) Section 304(b)(1)(B) of the Act provides for "guidelines" to implement the uniform national standards of Section 301(b)(1)(A). Thus Congress recognized that some flexibility was necessary in order to take into account the complexity of the industrial world with respect to the practicability of pollution control technology. In conformity with the Congressional intent and in recognition of the possible failure of these regulations to account for all factors bearing on the practicability of control technology, it was concluded that some provision was needed to authorize flexibility in the strict application of the limitations contained in the regulation where required by special circumstances applicable to individual dischargers. Accordingly, a provision allowing flexibility in the application of the limitations representing best practicable control technology currently available has been added to each subpart, to account for special circumstances that may not have been adequately accounted for when these regulations were developed.

(c) Economic impact.

The above listed changes will not significantly affect the conclusions of the economic study of the proposed regulations. The adjustment of the TSS effluent limitations for the leaching subcategory should not affect the cost of the treatment alternatives described in the Development Document and the proposed regulation. The effect of allowing a discharge from materials storage piles runoff as an alternative to total containment should slightly reduce the economic internal costs for existing plants within the industry.

(d) Cost-benefit analysis.

The detrimental effects of the constituents of waste waters now discharged by point sources within the cement manufacturing point source category are discussed in section VI of the report entitled "Development Document for Effluent Limitations Guidelines for the Cement Manufacturing Point Source Category" (January 1974). It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's waterways. Nevertheless, as indicated in section VI, the pollutants discharged have substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of

wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations guidelines includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in section VIII and in the supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines, CEMENT INDUSTRY" (September 1973). Implementing the effluent limitations guidelines will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed plants in the cement industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms, represent a relatively small percentage of the total capital investment in the industry.

(e) Publication of information on processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants.

In conformance with the requirements of Section 304(c), a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Cement Manufacturing Point Source Category," has been published and is available for purchase from the Government Printing Office, Washington, D.C. 20401 for a nominal fee.

(f) Final rulemaking.

In consideration of the foregoing, 40 CFR Chapter I, Subchapter N is hereby amended by adding a new Part 411, Cement Manufacturing Point Source Category, to read as set forth below. This final regulation is promulgated as set forth below and shall be effective April 22, 1974.

Dated: January 31, 1974.

JOHN QUARLES,  
Acting Administrator.

# PART 411—CEMENT MANUFACTURING POINT SOURCE CATEGORY

## Subpart A—Nonleaching Subcategory

- |        |   |
|--------|---|
| Sec.   |   |
| 411.10 | Applicability; description of the non-leaching subcategory.   |
| 411.11 | Specialized definitions.  |
| 411.12 | Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available. |
| 422.13 | Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.       |
| 411.14 | Reserved.   |
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## Subpart B—Leaching Subcategory

- |        |   |
|--------|---|
| Sec.   |   |
| 411.20 | Applicability; description of the leaching subcategory. |

- 411.21 Specialized definitions.
- 411.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 411.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 411.24 Reserved.
- 411.25 Standards of performance for new sources.
- 411.26 Pretreatment standards for new sources.

**Subpart C—Materials Storage Piles Runoff Subcategory**

- Sec.
- 411.30 Applicability; description of the materials storage pile runoff subcategory.
- 411.31 Specialized definitions.
- 411.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 411.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 411.34 Reserved.
- 411.35 Standards of performance for new sources.
- 411.36 Pretreatment standards for new sources.

**Subpart A—Nonleaching Subcategory**

**§ 411.10 Applicability; description of the nonleaching subcategory.**

The provisions of this subpart are applicable to discharges resulting from the process in which several mineral ingredients (limestone or other natural sources of calcium carbonate, silica, alumina, and iron together with gypsum) are used in the manufacturing of cement and in which kiln dust is not contracted with water as an integral part of the process and water is not used in wet scrubbers to control kiln stack emissions.

**§ 411.11 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

§ 411.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs)

which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic | Effluent limitations (maximum for any 1 day)     |
|-------------------------|--|
|                         | Metric units, (kg/kg of product)                 |
| TSS.....                | 0.005  |
| Temperature (heat)...   | Not to exceed 3° C rise above inlet temperature. |
| pH.....                 | Within the range 6.0 to 9.0.                     |
|                         | English units (lb/1,000 lb of product)           |
| TSS.....                | 0.005  |
| Temperature (heat)...   | Not to exceed 3° C rise above inlet temperature. |
| pH.....                 | Within the range 6.0 to 9.0.                     |

§ 411.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent characteristic | Effluent limitations (maximum for any 1 day)     |
|-------------------------|--|
|                         | Metric units (kg/kg of product)                  |
| TSS.....                | 0.005  |
| Temperature (heat)...   | Not to exceed 3° C rise above inlet temperature. |
| pH.....                 | Within the range 6.0 to 9.0.                     |
|                         | English units (lb/1,000 lb of product)           |
| TSS.....                | 0.005  |
| Temperature (heat)...   | Not to exceed 3° C rise above inlet temperature. |
| pH.....                 | Within the range 6.0 to 9.0.                     |

§ 411.14 Reserved.

§ 411.15 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

| Effluent characteristic | Effluent limitations (maximum for any 1 day)     |
|-------------------------|--|
|                         | Metric units (kg/kg of product)                  |
| TSS.....                | 0.005  |
| Temperature (heat)...   | Not to exceed 3° C rise above inlet temperature. |
| pH.....                 | Within the range 6.0 to 9.0.                     |
|                         | English units (lb/1,000 lb of product)           |
| TSS.....                | 0.005  |
| Temperature (heat)...   | Not to exceed 3° C rise above inlet temperature. |
| pH.....                 | Within the range 6.0 to 9.0.                     |

§ 411.16 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the nonleaching subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, § 128.133 of this title shall be amended to read as follows:

"In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 411.15; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

**Subpart B—Leaching Subcategory**

§ 411.20 Applicability; description of the leaching subcategory.

The provisions of this subpart are applicable to discharges resulting from the

process in which several mineral ingredients (limestone or other natural sources of calcium carbonate, silica, alumina, and iron together with gypsum) are used in the manufacturing of cement and in which kiln dust is contacted with water as an integral part of the process or water is used in wet scrubbers to control kiln stack emissions.

**§ 411.21 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

**§ 411.22 Effluent limitations guidelines** representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop, and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic | Effluent limitations (maximum for any 1 day)     |  |
|-------------------------|--|--|
|                         | Metric units (kg/kg of dust leached)             |  |
| TSS.....                | 0.4  |  |
| Temperature (heat)...   | Not to exceed 3° C rise above inlet temperature. |  |
| pH.....                 | Within the range 6.0 to 9.0.                     |  |
|                         | English units (lb/1,000 lb of dust leached)      |  |
|                         | 0.4  |  |
| TSS.....                | 0.4  |  |
| Temperature (heat)...   | Not to exceed 3° C rise above inlet temperature. |  |
| pH.....                 | Within the range 6.0 to 9.0.                     |  |

**§ 411.23 Effluent limitations guidelines** representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent characteristic | Effluent limitations (maximum for any 1 day)     |  |
|-------------------------|--|--|
|                         | Metric units (kg/kg of product)                  |  |
| TSS.....                | 0.005  |  |
| Temperature (heat)...   | Not to exceed 3° C rise above inlet temperature. |  |
| pH.....                 | Within the range 6.0 to 9.0.                     |  |
|                         | English units (lb/1,000 lb of product)           |  |
|                         | 0.005  |  |
| TSS.....                | 0.005  |  |
| Temperature (heat)...   | Not to exceed 3° C rise above inlet temperature. |  |
| pH.....                 | Within the range 6.0 to 9.0.                     |  |

**§ 411.24 Reserved.**

**§ 411.25 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

| Effluent characteristic | Effluent limitations (maximum for any 1 day)     |  |
|-------------------------|--|--|
|                         | Metric units (kg/kg of dust leached)             |  |
| TSS.....                | 0.4  |  |
| Temperature (heat)...   | Not to exceed 3° C rise above inlet temperature. |  |
| pH.....                 | Within the range 6.0 to 9.0.                     |  |
|                         | English units (lb/1,000 lb of dust leached)      |  |
|                         | 0.4  |  |
| TSS.....                | 0.4  |  |
| Temperature (heat)...   | Not to exceed 3° C rise above inlet temperature. |  |
| pH.....                 | Within the range 6.0 to 9.0.                     |  |

**§ 411.26 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the leaching subcategory, which

is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, § 128.133 of this title shall be amended to read as follows:

"In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 411.25; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

**Subpart C—Materials Storage Piles  
Runoff Subcategory**

**§ 411.30 Applicability:** description of the materials storage piles runoff subcategory.

The provisions of this subpart are applicable to discharges resulting from the runoff of rainfall which derives from the storage of materials, including raw materials, intermediate products, finished products and waste materials which are used in or derived from the manufacture of cement under either subcategory—A or subcategory—B.

**§ 411.31 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "10 year, 24 hour rainfall event" shall mean a rainfall event with a probable recurrence interval of once in ten years as defined by the National Weather Service in Technical Paper No. 40, "Rainfall Frequency Atlas of the United States," May 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

**§ 411.32 Effluent limitations guidelines** representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual

## RULES AND REGULATIONS

discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for the facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) Subject to the provisions of subparagraph (b) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| <i>Effluent characteristic</i> | <i>Effluent limitations</i>  |
|--------------------------------|------------------------------|
| TSS-----                       | Not to exceed 50 mg/l.       |
| pH-----                        | Within the range 6.0 to 9.0. |

(b) Any untreated overflow from facilities designed constructed and operated to treat the volume of runoff from materials storage piles which is associated with a 10 year, 24 hour rainfall event shall not be subject to the pH and TSS limitations stipulated in subparagraph (a), above.

§ 411.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

(a) Subject to the provisions of subparagraph (b) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| <i>Effluent characteristic</i> | <i>Effluent limitations</i>  |
|--------------------------------|------------------------------|
| TSS-----                       | Not to exceed 50 mg/l.       |
| pH-----                        | Within the range 6.0 to 9.0. |

(b) Any untreated overflow from facilities designed constructed and operated to treat the volume of runoff from materials storage piles which results from a 10 year, 24 hour rainfall event shall not be subject to the pH and TSS limitations stipulated in subparagraph (a), above.

§ 411.34 Reserved.

§ 411.35 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

§ 411.36 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the materials storage piles runoff subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, § 128.133 of this title shall be amended to read as follows:

"In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 411.35; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

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PART II



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## **ENVIRONMENTAL PROTECTION AGENCY**

■

### **RUBBER PROCESSING POINT SOURCE CATEGORY**

**Tire and Inner Tube Plants, Emulsion  
Crumb Rubber, Solution Crumb Rubber,  
and Latex Rubber Subcategories**

**Title 40—Protection of the Environment**  
**CHAPTER I—ENVIRONMENTAL**  
**PROTECTION AGENCY**

**SUBCHAPTER N—EFFLUENT GUIDELINES AND STANDARDS**

**PART 428—RUBBER PROCESSING**  
**POINT SOURCE CATEGORY**

*Tire and Inner Tube Plants, Emulsion Crumb Rubber, Solution Crumb Rubber, Latex Rubber Subcategories*

On October 11, 1973 notice was published in the *FEDERAL REGISTER*, (38 FR 8219) that the Environmental Protection Agency (EPA or Agency) was proposing effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the tire and inner tube plants, emulsion crumb rubber, solution crumb rubber and latex rubber subcategories of the rubber processing category of point sources. This final rulemaking which established final effluent limitations guidelines and standards of performance and pretreatment standards for new sources is promulgated pursuant to sections 301, 304 (b) and (c), 306 (b) and (c), and 307(c) of the Federal Water Pollution Control Act, as amended, (the Act); (33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c), and 1317(c)); 86 Stat. 816 et seq.; Pub. L. 92-500. Regulations regarding cooling water intake structures for all categories of point sources under section 316(b) of the Act will be promulgated in 40 CFR 402.

In addition, the EPA is simultaneously proposing a separate provision which appears in the proposed rules section of the *FEDERAL REGISTER*, stating the application of the limitations and standards set forth below to users of publicly owned treatment works which are subject to pretreatment standards under section 307(b) of the Act. The basis of that proposed regulation is set forth in the associated notice of proposed rulemaking.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for the tire and inner tube plants, emulsion crumb rubber, solution crumb rubber and latex rubber subcategories. In addition, the regulations as proposed were supported by two other documents: (1) the document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Tire and Synthetic Segment of the Rubber Processing Point Source Category" (September 1973) and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines," "Rubber Processing Industry" (September 1973). Both of these documents were made available to the public and circulated to interested persons at approximately the time of publication of the notice of proposed rulemaking.

Interested persons were invited to participate in the rulemaking by submitting written comments within 30 days from

the date of publication. Prior public participation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties were described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response thereto follows.

The regulation as promulgated contains minor departures from the proposed regulation. The following discussion outlines the reasons why these changes were made and why other suggested changes were not made.

(a) Summary of Comments.

The following responded to the request for written comments contained in the preamble to the proposed regulation: Phillips Petroleum; Anne W. Amacher, Citizen; B. F. Goodrich Co.; Texas-U.S. Chemical Co.; Dupont-Texas Chemical Council; Carolyn A. Carr, Citizen; Uniroyal, Inc.; Dupont, Wilmington; Los Angeles County; U.S. Department of Commerce and the U.S. Department of the Interior.

Each of the comments received was carefully reviewed and analyzed. The following is a summary of the significant comments and the Agency's response to those comments.

(1) It was urged that the Agency not include algae from oxidation ponds in the TSS limitation or that the Agency double the limitation, if algae is to be included.

It is the Agency's intention that any material contributing to TSS is to be included in the limitation and the Agency believes that the limitation can be met by plants practicing best practicable control technology currently available.

(2) It was suggested that the BOD test is inaccurate at low concentrations (5 mg/l) and that best available technology economically achievable to achieve 5 mg/l is unrealistic in terms of cost and water quality impact.

The use of activated carbon technology for best available technology economically achievable will reduce BOD5 to levels less than 5 mg/l, which in the Agency's judgment is within the range of measurement using standard analytical methods.

(3) The comment was made that one of EPA's contractors has assumed that rubber production is directly proportional to water use.

The data obtained by the contractor shows that there is a high correlation between production and water use within any given synthetic rubber subcategory.

(4) It was recommended that the best available technology economically achievable limitations be doubled or that the Agency study best available technology economically achievable further.

It is the Agency's judgment that, based on current data, the limitations set forth for best available technology economically achievable can be met using activated carbon technology. In addition the Act requires review of the limitations within five years of promulgation.

(5) It was recommended that the wording "30 consecutive days" be changed to "any calendar month" to simplify record keeping.

Since discharges will in any event be required to keep daily production and discharge records to determine compliance with limitations applicable to any one day, additional monitoring or records will not be required to comply with this provision. Moreover, the Agency believes that dischargers should meet the limitations for any 30 consecutive days in order to prevent sustained periods of high levels of discharge.

(6) One commenter stated that the regulations do not prohibit tire and inner tube plants from releasing toxic pollutants and pollutants with unknown effects on human beings and fish. Also the regulation does not prohibit the release of any specific chemical compound by name, neither does the regulation require tire plants to get EPA permission before adding new chemicals to their process which might get into the discharged water.

Although the ingredients used in compounding rubber for tire and inner tube manufacturing might possibly be harmful if discharged as process waste water pollutants, compounding is a dry process and none of the specific ingredients used in compounding the rubber was detected in the waste waters. The limitations for best practicable control technology and best available technology will lead to control and removal of all identified primary pollutants of concern. Discharge of harmful substances are independently controlled under sections 303 and 307 of the Act.

(7) The same commenter noted that EPA did not consult with the American Chemical Society, American Academy of Science, American Cancer Society or NIH in drafting the proposed regulations.

The preamble to the proposed regulations invited comments from all interested persons or organizations. The organizations cited by the commenter did not submit comments or suggestions.

(8) One commenter does not believe there are any benefits to be gained by separating process waste water from utility waste water and storm water in tire and inner tube plants.

The Agency believes that isolation of process waste waters from other types of plant wastes as the least costly alternative to meet the effluent limitations. Any method or procedure can be used that will achieve the required reduction of the process waste water pollutants, TSS and oil and grease.

(9) Two commenters stated that the technology, biological treatment, does not result in a specified COD removal. COD removal is only coincidental with BOD removal.

COD does not always correlate with BOD. However, in this industry, there is sufficient data to indicate that best practicable control technology will result in compliance with the limitations for COD.

(10) Several commenters stated that there has not been enough study on which to base best available technology

economically achievable limitations and recommend a several months testing program to obtain additional information on the applicability of best available technology economically achievable to specific types of synthetic rubber waste water pollutants.

Although the Agency believes that the BATEA limitations are realistic, it is recognized that there may be some technical and economic risk for industry in applying the technology to synthetic rubber waste effluents. However, the Act requires review and, if appropriate, modification of these guidelines every five years. If subsequent data indicate that modification of these guidelines is required, such modification will be considered at that time.

(11) One commenter suggested that EPA should relate limitations to the size of the receiving stream. The characteristics of receiving water bodies must be taken into account in permit issuance, to ensure that permits require compliance with water quality standards under section 303 of the Act. However, receiving water characteristics are not relevant to determination of effluent reduction attainable by the application of available technology.

(12) One commenter suggested that the control of problems at old tire plants indicate that the "guidelines" should be twice that of newer plants.

The data in possession of the Agency and presented in the Development Document indicate that any tire or inner tube plant practicing BPCTCA can meet the effluent limitations set forth in this regulation regardless of the age of the plant.

(13) Two commenters stated that the costs of segregation of effluent streams at old tire plants are excessive and the lack of available land for waste treatment systems at old plants may entail excessive costs.

The isolation of the process waste waters stream from other waste streams in older tire plants should not require excessive costs. These costs are discussed in detail in the development document. The equipment and control systems required to meet BPCTCA have been estimated to require less than 5,000 square feet of plant area.

(14) One commenter stated that the BPCTCA for emulsion plants contains flaws and does not account for nitrile rubber production peculiarities.

The commenter did not specify any specific respects in which nitrile rubber facilities differ from other facilities in the same subcategory. The Agency is not aware that any relevant differences exist. Accordingly, it is appropriate to require such facilities to achieve the same degrees of effluent control as other plants employing similar processes.

(15) Two commenters stated that there seems to be no logical correlation between neoprene technology and hydrocarbon technology that would justify a common limitation for either BPCTCA or BATEA.

Although neoprene production facilities may have more difficulty operating

treatment systems than hydrocarbon facilities, it is the Agency's judgment that neoprene rubber facilities can meet the limitations for BPCTCA and BATEA as set forth in the regulation.

(16) A comment was made that the start-and-stop process operations at chloroprene plants affect their ability to meet the daily limitations.

The Agency believes that the start-and-stop process operations at chloroprene plants are no more frequent or severe than in hydrocarbon rubber production.

(17) It was recommended that the definitions of specific pollutant parameters measurements be changed and that the basis for limitation reflect both product produced and water use and that the limitation be expressed in mg/l.

These guidelines are based upon the total quantity of pollutant per unit of production, rather than upon the concentration discharged, to preclude the use of dilution as a means of attaining the limitations and to avoid penalizing dischargers who practice good water conservation. However, any discharger will be able to calculate the concentration which he will have to achieve in order to meet the limitations from his known water usage and the limitations set forth herein.

(18) It was recommended that the older and newer tire and inner tube plants subcategories be combined, since the limitations set forth for each of the two subcategories are the same.

The original purpose of the subcategorization for the tire and inner tube plants subcategories was to identify the relative economic impact for old and new plants. Since the Development Document and the Economic Analysis report for the industry clarify the differences in cost for old and new plants, the need to retain the separate subcategorization for older and newer plants is dissipated. The subcategories, therefore have been combined, and the regulation modified to reflect the change.

(19) Two commenters stated that the accuracy of the cost estimates is less than satisfactory for the synthetic rubber subcategories. Costs and economic impacts should be reexamined.

The cost estimates provided in the Development Document and used for the economic analysis have been reexamined. It is the Agency's judgment that the cost estimates, although subject to minor errors and miscalculations, in general accurately reflect the economic impact on the various segments of the industry.

(20) Another commenter thought that the methodology statements are incorrect.

The Agency and the economics contractor have reviewed the methodology and continue to believe that it represents the economic situation fairly.

(21) It was suggested that the Agency did not examine the economic impact or differential treatment costs which would be incurred by small producers.

The Agency has examined a wide range of plants within this industry. All of the

small plants of which we are aware discharge into municipal treatment systems and will therefore not be directly affected by these guidelines. However, because there is a possibility that small plants may exist which discharge directly into navigable waters, the treatment cost which such a plant would incur were examined and discussed in the development document.

(22) A comment was made that the economic analysis presents costs based on a breakdown different from that of the Development Document.

This was checked and the Agency found that the economic analysis used investment and annual costs based on costs provided in the Development Document.

(b) Revision of the proposed regulation prior to promulgation.

As a result of public comment and continuing review and evaluation of the proposed regulation by the EPA, the following changes have been made in the regulation.

(1) The older tire and inner tube plants subcategory and the newer tire and inner tube plants subcategory have been combined and designated as tire and inner tube plants subcategory.

(2) The subparts of the regulation have been numbered to reflect a total of four subcategories instead of five.

(3) Section 304(b)(1)(B) of the Act provides for "guidelines" to implement the uniform national standards of section 301(b)(1)(A). Thus Congress recognized that some flexibility was necessary in order to take into account the complexity of the industrial world with respect to the practicability of pollution control technology. In conformity with the Congressional intent and in recognition of the possible failure of these regulations to account for all factors bearing on the practicability of control technology, it was concluded that some provision was needed to authorize flexibility in the strict application of the limitations contained in the regulation where required by special circumstances applicable to individual dischargers. Accordingly, a provision allowing flexibility in the application of the limitations representing best practicable control technology currently available has been added to each subpart, to account for special circumstances that may not have been adequately accounted for when these regulations were developed.

(c) Economic impact.

The resultant changes to the regulation will not affect the results of the economic analysis prepared for the proposed regulation.

(d) Cost-benefit analysis.

The detrimental effects of the constituents of waste waters now discharged by point sources within the tire and synthetic segment of the rubber processing point source category are discussed in section VI of the report entitled "Development Document for Effluent Limitations Guidelines for the Tire and Synthetic Segment of the Rubber Processing Point Source Category" (February 1974). It is not feasible to quantify in economic

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terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's waterways. Nevertheless, as indicated in section VI, the pollutants discharged have substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations guidelines includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in Section VIII and in the supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines RUBBER PROCESSING INDUSTRY" (September 1973). Implementing the effluent limitations guidelines will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed plants in the rubber processing industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms, represent a relatively small percentage of the total capital investment in the industry.

(e) Publication of information on processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants.

In conformance with the requirements of Section 304(c) of the Act, a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Tire and Synthetic Segment of the Rubber Processing Point Source Category," has been published and is available for purchase from the Government Printing Office, Washington, D.C. 20401 for a nominal fee.

(f) Final rulemaking.

In consideration of the foregoing, 40 CFR Chapter I, Subchapter N is hereby amended by adding a new Part 428, Rubber Processing Point Source Category, to read as set forth below. This final regulation is promulgated as set forth below and shall be effective April 22, 1974.

Dated: February 8, 1974.

RUSSELL E. TRAIN,  
Administrator.

## PART 428—RUBBER MANUFACTURING POINT SOURCE CATEGORY

### Subpart A—Tire and Inner Tube Plants Subcategory

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- 428.10 Applicability; description of the tire and inner tube plants subcategory.
- 428.11 Specialized definitions.
- 428.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

- Sec.
- 428.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 428.14 Reserved.
- 428.15 Standards of performance for new sources.
- 428.16 Pretreatment standards for new sources.
- Subpart B—Emulsion Crumb Rubber Subcategory
- 428.20 Applicability; description of the emulsion crumb rubber subcategory.
- 428.21 Specialized definitions.
- 428.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
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- 428.25 Standards of performance for new sources.
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- Subpart C—Solution Crumb Rubber Subcategory
- 428.30 Applicability; description of the solution crumb rubber subcategory.
- 428.31 Specialized definitions.
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- 428.35 Standards of performance for new sources.
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- Subpart D—Latex Rubber Subcategory
- 428.40 Applicability; description of the latex rubber subcategory.
- 428.41 Specialized definitions.
- 428.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
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- 428.44 Reserved.
- 428.45 Standards of performance for new sources.
- 428.46 Pretreatment standards for new sources.

### Subpart A—Tire and Inner Tube Plants Subcategory

- § 428.10 Applicability; description of the tire and inner tube plants subcategory.

The provisions of this subpart are applicable to discharges of pollutants resulting from the production of pneumatic tires and inner tubes in tire and inner tube plants.

#### § 428.11 Specialized definitions.

For the purpose of this subpart:

- (a) Except as provided below, the general definitions, abbreviations and meth-

ods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "raw material" shall mean all natural and synthetic rubber, carbon black, oils, chemical compounds, fabric and wire used in the manufacture of pneumatic tires and inner tubes or components thereof.

(c) The term "oil and grease" shall mean those components of a waste water amenable to measurement by the method described in Methods for Chemical Analysis of Water and Wastes, 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 217.

#### § 428.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic                | Effluent Limitations         |   |
|--|------------------------------|---|
|  | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kg/kg of product)        |                              |   |
| TSS.....                               | 0.006                        | 0.064   |
| Oil and grease.....                    | .024                         | .016  |
| pH.....                                | Within the range 6.0 to 9.0. |   |
| English units (lb/1,000 lb of product) |                              |   |
| TSS.....                               | 0.006                        | 0.064   |
| Oil and grease.....                    | .024                         | .016  |
| pH.....                                | Within the range 6.0 to 9.0. |   |

**§ 428.13 Effluent limitations guidelines, representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent characteristic                | Effluent limitations         |   |
|--|------------------------------|---|
|  | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kg/kg of product)        |                              |   |
| TSS.....                               | 0.006                        | 0.064   |
| Oil and grease.....                    | .024                         | .016  |
| pH.....                                | Within the range 6.0 to 9.0. |   |
| English units (lb/1,000 lb of product) |                              |   |
| TSS.....                               | 0.006                        | 0.064   |
| Oil and grease.....                    | .024                         | .016  |
| pH.....                                | Within the range 6.0 to 9.0. |   |

**§ 428.14 Reserved.**

**§ 428.15 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

| Effluent characteristic                | Effluent limitations         |   |
|--|------------------------------|---|
|  | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kg/kg of product)        |                              |   |
| TSS.....                               | 0.006                        | 0.064   |
| Oil and grease.....                    | .024                         | .016  |
| pH.....                                | Within the range 6.0 to 9.0. |   |
| English units (lb/1,000 lb of product) |                              |   |
| TSS.....                               | 0.006                        | 0.064   |
| Oil and grease.....                    | .024                         | .016  |
| pH.....                                | Within the range 6.0 to 9.0. |   |

**§ 428.16 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the tire and inner tube plants

subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows: "In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 428.15; *Provided*, That if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

**Subpart B—Emulsion Crumb Rubber Subcategory**

**§ 428.20 Applicability; description of the emulsion crumb rubber subcategory.**

The provisions of this subpart are applicable to discharges of pollutants resulting from the manufacture of emulsion crumb rubber.

**§ 428.21 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "oil and grease" shall mean those components of a waste water amenable to measurement by the method described in Methods for Chemical Analysis of Water and Wastes, 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 217.

**§ 428.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or

other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic                | Effluent limitations         |   |
|--|------------------------------|---|
|  | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kg/kg of product)        |                              |   |
| COD.....                               | 12.00                        | 8.00  |
| BOD <sub>5</sub> .....                 | .60                          | .40   |
| TSS.....                               | .98                          | .65   |
| Oil and grease.....                    | .24                          | .16   |
| pH.....                                | Within the range 6.0 to 9.0. |   |
| English units (lb/1,000 lb of product) |                              |   |
| COD.....                               | 12.00                        | 8.00  |
| BOD <sub>5</sub> .....                 | .60                          | .40   |
| TSS.....                               | .98                          | .65   |
| Oil and grease.....                    | .24                          | .16   |
| pH.....                                | Within the range 6.0 to 9.0. |   |

**§ 428.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent characteristic                | Effluent limitations         |   |
|--|------------------------------|---|
|  | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kg/kg of product)        |                              |   |
| COD.....                               | 3.12                         | 2.08  |
| BOD <sub>5</sub> .....                 | .12                          | .08   |
| TSS.....                               | .24                          | .16   |
| Oil and grease.....                    | .12                          | .08   |
| pH.....                                | Within the range 6.0 to 9.0. |   |
| English units (lb/1,000 lb of product) |                              |   |
| COD.....                               | 3.12                         | 2.08  |
| BOD <sub>5</sub> .....                 | .12                          | .08   |
| TSS.....                               | .24                          | .16   |
| Oil and grease.....                    | .12                          | .08   |
| pH.....                                | Within the range 6.0 to 9.0. |   |

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## § 428.24 Reserved.

## § 428.25 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: the limitations shall be as specified in § 428.22.

## § 428.26 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the emulsion crumb rubber subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows: "In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 428.25; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

## Subpart C—Solution Crumb Rubber Subcategory

## § 428.30 Applicability: description of the solution crumb rubber subcategory.

The provisions of this subpart are applicable to discharges of pollutants resulting from the

## § 428.31 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "oil and grease" shall mean those components of waste water amenable to measurement by the method described in Methods for Chemical Analysis of Water and Wastes, 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 217.

## § 428.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into ac-

count all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic                | Effluent limitations         |   |
|--|------------------------------|---|
|  | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kg/kg of product)        |                              |   |
| COD.....                               | 5.91                         | 3.94  |
| BOD <sub>5</sub> .....                 | .60                          | .40   |
| TSS.....                               | .98                          | .65   |
| Oil and grease.....                    | .24                          | .16   |
| pH.....                                | Within the range 6.0 to 9.0. |   |
| English units (lb/1,000 lb of product) |                              |   |
| COD.....                               | 5.91                         | 3.94  |
| BOD <sub>5</sub> .....                 | .60                          | .40   |
| TSS.....                               | .98                          | .65   |
| Oil and grease.....                    | .24                          | .16   |
| pH.....                                | Within the range 6.0 to 9.0. |   |

## § 428.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent characteristic                | Effluent limitations         |   |
|--|------------------------------|---|
|  | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kg/kg of product)        |                              |   |
| COD.....                               | 3.12                         | 2.08  |
| BOD <sub>5</sub> .....                 | .12                          | .08   |
| TSS.....                               | .24                          | .16   |
| Oil and grease.....                    | .12                          | .08   |
| pH.....                                | Within the range 6.0 to 9.0. |   |
| English units (lb/1,000 lb of product) |                              |   |
| COD.....                               | 3.12                         | 2.08  |
| BOD <sub>5</sub> .....                 | .12                          | .08   |
| TSS.....                               | .24                          | .16   |
| Oil and grease.....                    | .12                          | .08   |
| pH.....                                | Within the range 6.0 to 9.0. |   |

## § 428.34 [Reserved]

## § 428.35 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: the limitations shall be as specified in § 428.32.

## § 428.36 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the solution crumb rubber subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows: "In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 428.35: *Provided*, That if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant the pre-

treatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

**Subpart D—Latex Rubber Subcategory**

**§ 428.40 Applicability; description of the latex rubber subcategory.**

The provisions of this subpart are applicable to discharges of pollutants resulting from the manufacture of latex rubber.

**§ 428.41 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "oil and grease" shall mean those components of waste water amenable to measurement by the method described in Methods for Chemical Analysis of Water and Wastes, 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 217.

**§ 428.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) and factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors

are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic                  | Effluent limitations         |  |
|--|------------------------------|--|
|  | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed - |
| Metric units (kg/kg of product)          |                              |  |
| COD.....                                 | 10.27                        | 6.85   |
| BOD <sub>5</sub> .....                   | .51                          | .34  |
| TSS.....                                 | .82                          | .55  |
| Oil and grease.....                      | .21                          | .14  |
| pH.....                                  | Within the range 6.0 to 9.0. |  |
| English units (lb./1,000 lb. of product) |                              |  |
| COD.....                                 | 10.27                        | 6.85   |
| BOD <sub>5</sub> .....                   | .51                          | .34  |
| TSS.....                                 | .82                          | .55  |
| Oil and grease.....                      | .21                          | .14  |
| pH.....                                  | Within the range 6.0 to 9.0. |  |

**§ 428.43 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent characteristic                | Effluent Limitations         |   |
|--|------------------------------|---|
|  | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kg/kg of product)        |                              |   |
| COD.....                               | 2.66                         | 1.78  |
| BOD <sub>5</sub> .....                 | .11                          | .07   |
| TSS.....                               | .21                          | .14   |
| Oil and grease.....                    | .11                          | .07   |
| pH.....                                | Within the range 6.0 to 9.0. |   |
| English units (lb/1,000 lb of product) |                              |   |
| COD.....                               | 2.66                         | 1.78  |
| BOD <sub>5</sub> .....                 | .11                          | .07   |
| TSS.....                               | .21                          | .14   |
| Oil and grease.....                    | .11                          | .07   |
| pH.....                                | Within the range 6.0 to 9.0. |   |

**§ 428.44 [Reserved]**

**§ 428.45 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new point source subject to the provisions of this subpart: the limitations shall be as specified for § 428.42.

**§ 428.46 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the latex rubber subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows: "In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 428.45; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

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PART II



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## ENVIRONMENTAL PROTECTION AGENCY

■

### FERROALLOY MANUFACTURING POINT SOURCE CATEGORY

Effluent Limitations  
Guidelines and Standards

## Title 40—Protection of the Environment

CHAPTER I—ENVIRONMENTAL  
PROTECTION AGENCYSUBCHAPTER N—EFFLUENT GUIDELINES AND  
STANDARDSPART 424—FERROALLOY MANUFACTURING  
POINT-SOURCE CATEGORYSubpart A—Open Electric Furnaces With  
Wet Air Pollution Control Devices SubcategorySubpart B—Covered Electric Furnaces and  
Other Smelting Operations With Wet Air  
Pollution Control Devices Subcategory

## Subpart C—Slag Processing Subcategory

On October 18, 1973 notice was published in the FEDERAL REGISTER, (38 FR 29008), that the Environmental Protection Agency (EPA or Agency) was proposing effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the open electric furnaces with wet air pollution control devices subcategory, the covered electric furnaces and other smelting operations with wet air pollution control devices subcategory and the slag processing subcategory of the ferroalloy manufacturing category of point sources.

The purpose of this notice is to establish final effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources in the ferroalloy manufacturing category of point sources, by amending 40 CFR Chapter I, Subchapter N, to add a new Part 424. This final rulemaking is promulgated pursuant to sections 301, 304 (b) and (c), 306 (b) and (c) and 307(c) of the Federal Water Pollution Control Act, as amended (the Act); (33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c) and 1317(c)); 86 Stat. 816 et seq.; Pub. L. 92-500. Regulations regarding cooling water intake structures for all categories of point sources under section 316(b) of the Act will be promulgated in 40 CFR 402.

In addition, the EPA is simultaneously proposing a separate provision which also appears in Part II of today's FEDERAL REGISTER, stating the application of the limitations and standards set forth below to users of publicly owned treatment works which are subject to pretreatment standards under section 307 (b) of the Act. The basis of that proposed regulation is set forth in the associated notice of proposed rulemaking.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for the open electric furnaces with wet air pollution control devices subcategory, the covered electric furnaces and other smelting operations with wet air pollution control devices subcategory and the slag processing subcategory. In addition, the regulations as proposed were supported by two other documents; (1) The document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Stand-

ards for the Smelting and Slag Processing Segments of the Ferroalloy Manufacturing Point Source Category" (August 1973) and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines, The Ferroalloys Industry" (August, 1973). Both of these documents were made available to the public and circulated to interested persons at approximately the time of publication of the notice of proposed rulemaking.

Interested persons were invited to participate in the rulemaking by submitting written comments within 30 days from the date of publication. Prior public participation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties were described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response thereto follows in this document.

It should be noted that the production of calcium carbide (although similar to that for ferroalloys and often conducted in the same plants) is not included in these regulations for ferroalloys. Calcium carbide is included in the regulations to be promulgated under Part 415, Inorganic Chemicals Manufacturing Industry.

(a) *Summary of comments.* The following responded to the request for written comments contained in the preamble to the proposed regulation: Union Carbide Corporation; Alcoa, Inc.; Ohio Ferro-Alloy Corporation; Foote Mineral Company; The Ferroalloys Association; Chromium Mining and Smelting Corporation; Aronetics, Inc.; Colorado Department of Public Health; United States Water Resources Council; U.S. Atomic Energy Commission; U.S. Department of the Interior; U.S. Department of Commerce and U.S. Department of Health, Education, and Welfare.

Each of the comments received was carefully reviewed and analyzed. The following is a summary of the significant comments and the Agency's response to them.

(1) The commentators noted that the treatment system for scrubber wastewater was not demonstrated in its entirety in any one plant, and that therefore one cannot assign costs to it. Additionally, the comment was made that the concentrations upon which the proposed guidelines were based were lower than those found in the plants observed during the survey.

Although the treatment systems proposed for best practicable control technology currently available, best available technology economically achievable and new sources is not presently in use in any one plant, the various modules of which they are comprised are in use in this industry, or in similar industries. As the industry's trade association pointed out in its comments, "little information is available on water pollution from ferroalloy plants and on treatment of waste water from them . . . Minimal effort has been directed toward . . . perfecting control technology for those pollutants that are

generated." Because of this background (or lack thereof), it was necessary to synthesize a treatment system which would work for this industry, from technologies utilized in this and similar industries. Because the treatment modules are in use, a cost estimate can be made for the total system which is reasonably accurate. Additionally, in the Development Document, examples of such modules or systems in similar industries are discussed in further detail than previously.

Definition of what constitutes "best practicable" technology for many industries involves, at first, a general review of the industry to determine the best technologies being practiced in the industry. Then, after closer review and investigation of these technologies, the "best practicable" technology would be assessed as the average of the best, though not necessarily the best technology, after taking into account information relating to other factors spelled out in the Act. In those industries where present treatment is uniformly inadequate, a higher degree of treatment than is presently practiced may be required based on a comparison with existing treatments for similar wastes in other industries. Factors for determining the "best available" technology are similar except that rather than assessing the average of the best, the focus would be on the very best technology currently in use or demonstrably achievable.

Under this analysis of the statutory standard, it is the opinion of the Agency that it is not necessary that "best practicable" technology be currently in use as a single treatment. As applied to the ferroalloy industry, the methodology employed resulted in sufficient data to support the resulting limitations, and is completely consistent with the statutory requirements.

(2) The relationship between the 30 day average limitations and the 24 hour maximum limitations was questioned.

The 30 day average limitations are by no means the absolute lowest values attainable by the indicated technology, but represent values which can be readily controlled around on a day to day basis. The 24 hour maximum limitation was established so as not to exceed these 30 day values by more than a factor of two. In the absence of sufficient performance data from the industry to establish a factor between the two limitations on a statistical basis, a factor of two was chosen after taking into consideration the operational variability involved. This factor of two is considered to be generous.

(3) It was remarked that some plants might be forced to lower their production rates, since recirculated non-contact-cooling water would be of higher temperature than once-through. It was also remarked that data to permit determination of heat content (as described in the proposed regulation) was not obtained during plant sampling.

In the interests of uniformity with the guidelines for other industries, no regulation for the control of non-contact cooling water will be promulgated at this

time. However, non-contact cooling water for all industries will be studied in the future and standards for non-contact cooling water will then be established.

(4) The costs of treatment and facilities were thought by some commentators to be low, particularly when a plant might have to retrofit such facilities. They were also thought to be low because the costs might be "book value", or a percentage of the total facility, rather than actual costs. It was also noted that the costs are not those which would actually be incurred by a plant presently requiring such installations, since the costs are given in August, 1971 dollars. It was also thought that the costs did not include land costs.

The costs as given are generous estimates of those which may be incurred. Costs such as those for demolition, etc., which might be necessary for installation of treatment in an existing plant, were not included, since those costs would be highly variable from plant to plant. Also highly variable will be the cost of land. However, it is believed that none of the seven plants in the industry which were visited and which utilized wet air pollution control systems will be forced to purchase land for water pollution control purposes. Because of the variability in cost and the belief that no plant in the industry will be required to purchase such land, this cost was not included. Inflation, has of course, affected the actual costs, so that such a system if actually built now would be somewhat more expensive than if built in August 1971.

(5) Some commentators objected to the use of limitations on a gross, rather than net basis. It was remarked, for example, that the amounts to be removed and the cost of removal are dependent upon the intake levels, that discharge levels could not be met because of the intake levels, etc.

If not otherwise specified, the effluent limitation numbers in this regulation will be applied as absolute discharge limitations. The use of such absolute limitations is generally appropriate since the concentration of a pollutant remaining after the application of a given treatment technology is relatively independent of minor variations in the pollutant concentration in the waste or the source of the pollutant. EPA intends to amend the NPDES regulations to take into account, when appropriate, pollutants already existing in the stream, so that in certain cases an effluent limitation may be adjusted to take into account pollutants entering with a discharger's supply providing the water is withdrawn from the same source into which it is discharged. If the source is other than the receiving waterbody, the effluent standards will be applied as absolute limitations without adjustment.

(6) It was remarked that ranges of numbers (i.e., limitations) are needed for flexibility in writing the permit, so that variations in age, size, location, etc., may receive allowances. It was also noted

that the location (climate) of a plant could have an effect on the wastewater treatment system's performance.

Range is provided for, as are the other factors, by the breaking up of the industry into subcategories with different effluent limitations. The factor of size has been taken into account when writing the permit on a production basis. Additionally, the factor of location (climate) can be rectified when designing the treatment system. A special provision allowing flexibility in the application of the limitations representing best practicable control technology currently available has been added, to account for special circumstances applicable to individual dischargers that may not have been adequately taken into account when the regulations were developed.

(7) Some commentators felt that the data base was insufficient for the promulgation of guidelines and that not enough time was covered to be truly representative of year-round operating conditions.

Within the required time constraints for the collection of data, it was impossible to expand the sampling and analytical work to cover more plants, or even to collect more samples from the same plants. However, it is felt that the overall type sampling performed provides a good representation of wastewaters and that this data, together with the contractor's many years of experience in water and waste treatment in similar industries, provides an adequate basis for the regulation. The only water usage at the vast majority of plants in the ferroalloys industry is for non-contact cooling. Only one third of the electric furnaces in the industry use wet air pollution control methods. The economic impact study noted that nine plants (out of 22) use wet methods. Of these nine, six (or 2/3rds) were visited, and five sampled—a rather high level of coverage. The data thus obtained is the best available from any source at this time.

(8) Some comments were received regarding the testing methods and procedures followed.

The analytical methods used for measuring the pollutants in the various samples are now reported in the Development Document. As to any inaccuracy in the flow measurements, these measurements were the best which could be obtained during the sampling program.

(9) Many commentators objected, some very strenuously, to the requirement of zero discharge of pollutants for new sources of open electric furnaces, to be achieved by the use of dry, rather than wet, dust collection systems. The point was raised that it was "unreasonably restrictive for the Environmental Protection Agency to specify a particular type of emission control equipment . . ."

The proposed guidelines and standards have been rewritten to permit a discharge. The reason for this is that flexibility in selecting air pollution control equipment is believed to be necessary, and application of the best practicable

and best available technologies to wet scrubber emission control systems will not effect a zero discharge.

(10) It was remarked that the cost of water pollution cleanup may cause the premature phasing-out of older, smaller units, and that the combined economic impact of air and water pollution control would be very large, and that this impact would be borne by the plants without (air and water pollution control) equipment.

The economic impact study indicates that no plant closings will be caused by the cost of waste water treatment. Since no plants will close, any smaller older furnaces prematurely phased out will be replaced by the more profitable larger furnaces. This has been general practice in the industry in the past few years. The combined cost of air and water pollution control could be large, particularly for those plants not presently controlling their air emissions. However, most or all of these plants utilize open furnaces, and will almost certainly install baghouses for air pollution control because of the present cost favorability. The eight plants which are reported in the economic impact study as being the most impacted by the water pollution control regulations are those which have already taken a responsible attitude toward air pollution by installing control devices. They would thus not incur costs for air pollution control systems.

(11) Some commentators felt that the standards were more restrictive (for 1977 and 1983) for open furnaces than for covered furnaces.

The standards are based upon water usage (per Mwh) and concentrations. Although the water usage for scrubbers cleaning gases from open furnaces was expected to be higher than for covered furnaces (since scrubber water usage is generally a function of gas volume and open furnaces may emit up to 50 times more gas than do covered furnaces), the water use was found to be slightly less during the sampling survey. Very few open furnaces utilizing wet air pollution control systems were found, compared to the number of such systems on covered furnaces. Most open furnaces were either uncontrolled or used baghouses. It was not thought to be reasonable to base the limitation on the water usage at plants using electrostatic precipitators or steam/hot water scrubbers, since the water usage of these systems is very much less than those of venturi scrubbers. Since the field data indicates that water usage on open furnace scrubbers is less than for covered furnace scrubbers, a more restrictive standard is justified.

(12) It was pointed out that the blow-down from a slag concentrator at plant F (which was originally reported to flow to a closed lagoon) flows to a cinder dump. On this basis, it was suggested that the limitation of zero discharge for 1983 and new sources is not applicable.

Although the plant in question states that there is no discharge from the slag concentration operation after the blow-

down reaches the cinder dump, a reexamination of the facts in this case leads us to believe that zero discharge for this category may not be uniformly achievable. Therefore, the limitations for this category have been changed to allow for discharge of blowdown from slag processing operations after treatment.

(13) One commentator expressed concern that "disruptions or losses in U.S. productive capacity will increase our reliance on imports and adversely affect our international balance of payments."

Two factors are expected to be the major determinants of future ferroalloy imports versus the amount processed domestically from foreign ores. First, the U.S. depends almost entirely upon imported ores (chrome, nickel, manganese, tungsten, etc.) to produce ferroalloys. The countries exporting these ores are beginning to develop ferroalloy processing capabilities. Once they have developed sufficient capacity, it is likely that they will attempt to shift the U.S. purchases from ores to ferroalloys. Second, the world wide demand for ferroalloys based on sustained high levels of steel production may affect the foreign ferroalloys supply that has traditionally constituted a significant portion of our consumption.

In summary, the effects of pollution control costs upon foreign trade are expected to be insignificant in the context of the more fundamental changes expected in the world wide ferroalloys supply/demand situation.

(14) The comment was made that "conclusions based on average figures will understate the economic impact on smaller plants since the analysis is heavily weighted toward the assessment of impact on large plants." It was also questioned whether the eight plants that must install effluent controls by 1977 were small plants and whether those eight plants would be able to pass on the costs through price increases.

The contractor analyzed the incremental costs for various size plants and found the costs to be directly (linearly) related to production capacity over a broad range of furnace and/or plant size. Thus, the impact on profitability is unrelated to company size, and it cannot be construed that smaller firms will be more adversely affected than larger firms. Half of the plants requiring effluent control investments by 1977 are owned by one firm. Since the combined output from those plants represent one third of the U.S. production, it is reasonable to assume that it is in a position to be a leader in price increases.

(15) Some correspondents endorsed the proposal made to the Administrator by the Effluent Standards and Water Quality Information Advisory Committee that a significantly different approach be taken in the development of effluent guidelines.

The committee's proposal is under evaluation as a contribution toward future refinements on guidelines for some industries. The Committee has indicated that its proposed methodology could not

be developed in sufficient time to be available for the current phase of guideline promulgation, which is proceeding according to a court-ordered schedule. Its present state of development does not provide sufficient evidence to warrant the Agency's delaying issuance of any standard in hopes that an alternative approach might be preferable.

(b) *Revision of the proposed regulation prior to promulgation.* As a result of public comments and continuing review and evaluation of the proposed regulation by the EPA, the following changes have been made in the regulation.

(1) In the interests of uniformity with the other industry guidelines, the noncontact cooling water subcategory of this industry has been eliminated. Standards for noncontact cooling water for all industries will be promulgated in the future.

(2) Orthophosphate has been deleted as a pollutant parameter for the open electric furnaces with wet air pollution control devices subcategory (Subpart A) and the covered electric furnaces and other smelting operations with wet air pollution control devices subcategory (Subpart B). Phenols have been deleted as a pollutant parameter from Subpart A, and oil has been deleted as a pollutant parameter from all subcategories. These changes result from a reexamination of the raw data collected by the Agency's contractor and consideration of the costs of monitoring.

(3) A discharge from new open electric furnaces is now allowed. The reason for this is that flexibility in selecting air pollution control equipment is believed to be necessary, and application of the best practicable and best available technologies to wet scrubber emission control systems will not effect a zero discharge. This also allows plants to select air pollution control systems which are the most efficient and economic for that particular plant.

(4) Discharge of blowdown from slag processing operations (for 1983 and new sources) is now permitted. This results from an evaluation of data submitted by industry and a closer look at the data collected by the Agency's contractor.

(5) The standards for hexavalent chromium in Subpart A and B have been increased after consideration of the sensitivity of the analytical method.

(6) Section 304(b)(1)(B) of the Act provides for "guidelines" to implement the uniform national standards of section 301(b)(1)(A). Thus Congress recognized that some flexibility was necessary in order to take into account the complexity of the industrial world with respect to the practicability of pollution control technology. In conformity with the Congressional intent and in recognition of the possible failure of these regulations to account for all factors bearing on the practicability of control technology, it was concluded that some provision was needed to authorize flexibility in the strict application of the limitations contained in the regulation where required by special circumstances appli-

cable to individual dischargers. Accordingly, a provision allowing flexibility in the application of the limitations representing best practicable control technology currently available has been added to each subpart, to account for special circumstances that may not have been adequately accounted for when these regulations were developed.

(c) *Economic impact.* The above listed changes will not significantly affect the conclusions of the economic study of the proposed regulations. The change in the standard for hexavalent chromium and the deletion of some parameters should not affect the cost of the treatment system. Dropping of the noncontact cooling water segment of this industry from the present promulgation will result in a reduction of investment costs of at least \$1.2 million dollars for 1977 and 1983. This represents about 8 percent of the total calculated investment for the entire industry. While this "savings" has a slight effect on the economic impact from this regulation, it should be kept in mind that noncontact cooling water will be regulated in the future, and some additional investment may be necessary. Allowing for discharge of blowdown from slag processing operations should also result in very minor savings.

(d) *Cost-benefit analysis.* The detrimental effects of the constituents of waste waters now discharged by point sources within the smelting and slag processing segments of the ferroalloy manufacturing point source category are discussed in Section VI of the report entitled "Development Document for Effluent Limitations Guidelines for the Smelting and Slag Processing Segments of the Ferroalloy Manufacturing Point Source Category" (February, 1974). It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's waterways. Nevertheless, as indicated in Section VI, the pollutants discharged have substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations guidelines includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in Section VIII and in the supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines, The Ferroalloys Industry" (August, 1973). Implementing the effluent limitations guidelines will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed plants in the ferroalloys industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute

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terms, represent a relatively small percentage of the total capital investment in the industry.

(e) *Publication of information on processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants.* In conformance with the requirements of section 304(c) of the Act, a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Smelting and Slag Processing Segments of the Ferroalloy Manufacturing Point Source Category," has been published and is available for purchase from the Government Printing Office, Washington, D.C., 20401 for a nominal fee.

(f) *Final rulemaking.* In consideration of the foregoing, 40 CFR Chapter I, Subchapter N is hereby amended by adding a new Part 424, Ferroalloy Manufacturing Point Source Category, to read as set forth below. This final regulation is promulgated as set forth below and shall be effective April 23, 1974.

Dated: February 8, 1974.

RUSSELL E. TRAIN,  
Administrator.

## PART 424—FERROALLOY MANUFACTURING POINT SOURCE CATEGORY

### Subpart A—Open Electric Furnaces With Wet Air Pollution Control Devices Subcategory

- Sec.
- 424.10 Applicability; description of the open electric furnaces with wet air pollution control devices subcategory.
- 424.11 Specialized definitions.
- 424.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 424.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 424.14 [Reserved]
- 424.15 Standards of performance for new sources.
- 424.16 Pretreatment standards for new sources.

### Subpart B—Covered Electric Furnaces and Other Smelting Operations With Wet Air Pollution Control Devices Subcategory

- 424.20 Applicability; description of the covered electric furnaces and other smelting operations with wet air pollution control devices subcategory.
- 424.21 Specialized definitions.
- 424.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 424.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 424.24 [Reserved]
- 424.25 Standards of performance for new sources.
- 424.26 Pretreatment standards for new sources.

### Subpart C—Slag Processing Subcategory

- Sec.
- 424.30 Applicability; description of the slag processing subcategory.
- 424.31 Specialized definitions.
- 424.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 424.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 424.34 [Reserved]
- 424.35 Standards of performance for new sources.
- 424.36 Pretreatment standards for new sources.

### Subpart A—Open Electric Furnaces With Wet Air Pollution Control Devices Subcategory

§ 424.10 Applicability; description of the open electric furnaces with wet air pollution control devices subcategory.

The provisions of this subpart are applicable to discharges resulting from the smelting of ferroalloys in open electric furnaces with wet air pollution control devices. This subcategory includes those electric furnaces of such construction or configuration that the furnace off-gases are burned above the furnace charge level by air drawn into the system. After combustion the gases are cleaned in a wet air pollution control device, such as a scrubber, an electrostatic precipitator with water or other aqueous sprays, etc. The provisions of this subpart are not applicable to noncontact cooling water or to those electric furnaces which are covered, closed, sealed, or semi-covered and in which the furnace off-gases are not burned prior to collection (regulated in Subpart B).

#### § 424.11 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "Mwh" shall mean megawatt hour(s) of electrical energy consumed in the smelting process (furnace power consumption).

§ 424.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not

been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic | Effluent Limitations        |   |
|-------------------------|-----------------------------|---|
|                         | Maximum for any 1 day       | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units kg/Mwh     |                             |   |
| TSS.....                | 0.319                       | 0.160   |
| Chromium total.....     | .006                        | .0032   |
| Chromium VI.....        | .0006                       | .0003   |
| Manganese total.....    | .004                        | .002  |
| pH.....                 | Within the range 6.0 to 9.0 |   |
| English units lb/Mwh    |                             |   |
| TSS.....                | 0.703                       | 0.352   |
| Chromium total.....     | .014                        | .007  |
| Chromium VI.....        | .0014                       | .0007   |
| Manganese total.....    | .141                        | .070  |
| pH.....                 | Within the range 6.0 to 9.0 |   |

§ 424.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

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| Effluent characteristic | Effluent limitations        |   |
|-------------------------|-----------------------------|---|
|                         | Maximum for any 1 day       | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units kg/Mwh     |                             |   |
| TSS.....                | 0.024                       | 0.012   |
| Chromium total.....     | 0.008                       | 0.004   |
| Chromium VI.....        | 0.008                       | 0.004   |
| Manganese total.....    | 0.008                       | 0.004   |
| pH.....                 | Within the range 6.0 to 9.0 |   |
| English units lb/Mwh    |                             |   |
| TSS.....                | 0.052                       | 0.026   |
| Chromium total.....     | 0.017                       | 0.009   |
| Chromium VI.....        | 0.017                       | 0.009   |
| Manganese total.....    | 0.017                       | 0.009   |
| pH.....                 | Within the range 6.0 to 9.0 |   |

## § 424.14 [Reserved]

## § 424.15 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

| Effluent characteristic | Effluent limitations        |   |
|-------------------------|-----------------------------|---|
|                         | Maximum for any 1 day       | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units kg/Mwh     |                             |   |
| TSS.....                | 0.024                       | 0.012   |
| Chromium total.....     | 0.008                       | 0.004   |
| Chromium VI.....        | 0.008                       | 0.004   |
| Manganese total.....    | 0.008                       | 0.004   |
| pH.....                 | Within the range 6.0 to 9.0 |   |
| English units lb/Mwh    |                             |   |
| TSS.....                | 0.052                       | 0.026   |
| Chromium total.....     | 0.017                       | 0.009   |
| Chromium VI.....        | 0.017                       | 0.009   |
| Manganese total.....    | 0.017                       | 0.009   |
| pH.....                 | Within the range 6.0 to 9.0 |   |

## § 424.16 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the open electric furnaces with wet air pollution control devices subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 424.15; provided that, if the publicly owned treatment works which receives the pollutant is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge

of pollutants, be correspondingly reduced in stringency for that pollutant.

## Subpart B—Covered Electric Furnaces and Other Smelting Operations With Wet Air Pollution Control Devices Subcategory

## § 424.20 Applicability; description of the covered electric furnaces and other smelting operations with wet air pollution control devices subcategory.

The provisions of this subpart are applicable to discharges resulting from the smelting of ferroalloys in covered electric furnaces or other smelting operations, not elsewhere included in this part, with wet air pollution control devices. This subcategory includes those electric furnaces of such construction or configuration (known as covered, closed, sealed, semi-covered or semi-closed furnaces) that the furnace off-gases are not burned prior to collection and cleaning, and which off-gases are cleaned after collection in a wet air pollution control device such as a scrubber, wet baghouse, etc. This subcategory also includes those non-electric furnace smelting operations, such as exothermic (i.e., aluminothermic or silicothermic) smelting, ferromanganese refining, etc., where these are controlled for air pollution by wet air pollution control devices. This subcategory does not include noncontact cooling water or those furnaces which utilize dry dust collection techniques, such as dry baghouses.

## § 424.21 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "Mwh" shall mean megawatt hour(s) of electrical energy consumed in the smelting process (furnace power consumption).

## § 424.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are funda-

mentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic | Effluent limitations        |   |
|-------------------------|-----------------------------|---|
|                         | Maximum for any 1 day       | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units kg/Mwh     |                             |   |
| TSS.....                | 0.419                       | 0.209   |
| Chromium total.....     | .008                        | .004  |
| Chromium VI.....        | .0008                       | .0004   |
| Manganese total.....    | .084                        | .042  |
| Cyanide total.....      | .001                        | .002  |
| Phenols.....            | .003                        | .001  |
| pH.....                 | Within the range 6.0 to 9.0 |   |
| English units lb/Mwh    |                             |   |
| TSS.....                | 0.922                       | 0.461   |
| Chromium total.....     | .018                        | .009  |
| Chromium VI.....        | .0018                       | .0009   |
| Manganese total.....    | .184                        | .092  |
| Cyanide total.....      | .009                        | .018  |
| Phenols.....            | .013                        | .003  |
| pH.....                 | Within the range 6.0 to 9.0 |   |

Provided, however, That for nonelectric furnace smelting processes, the units of the effluent limitations set forth in this section shall be read as "kg/kg of product (lb/ton of products)", rather than "kg/Mwh (lb/Mwh)", and the limitations (except for pH) shall be three (3) times those listed in the table in this section.

## § 424.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

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| Effluent characteristic | Effluent limitations        |   |
|-------------------------|-----------------------------|---|
|                         | Maximum for any 1 day       | Average of daily values for 30 consecutive days shall not exceed— |
| <hr/>                   |                             |   |
|                         | Metric units kg/Mwh         |   |
| TSS.....                | 0.032                       | 0.016   |
| Chromium total.....     | .001                        | .0005   |
| Chromium VI.....        | .0001                       | .00005  |
| Manganese total.....    | .011                        | .005  |
| Cyanide total.....      | .0005                       | .0003   |
| Phenols.....            | .0004                       | .0002   |
| pH.....                 | Within the range 6.0 to 9.0 |   |
| <hr/>                   |                             |   |
|                         | English units lb/Mwh        |   |
| TSS.....                | 0.071                       | 0.035   |
| Chromium total.....     | .002                        | .0012   |
| Chromium VI.....        | .0002                       | .0001   |
| Manganese total.....    | .023                        | .012  |
| Cyanide total.....      | .001                        | .0005   |
| Phenols.....            | .0009                       | .0005   |
| pH.....                 | Within the range 6.0 to 9.0 |   |

Provided, however, That for nonelectric furnace smelting processes, the units of the effluent limitations set forth in this section shall be read as "kg/kg of product (lb/ton of product)", rather than "kg/Mwh (lb/Mwh)", and the limitations (except for pH) shall be three (3) times those listed in the table in this section.

## § 424.24 [Reserved]

## § 424.25 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

| Effluent characteristic | Effluent limitations        |   |
|-------------------------|-----------------------------|---|
|                         | Maximum for any 1 day       | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units kg/Mwh     |                             |   |
| TSS.....                | 0.032                       | 0.016   |
| Chromium total.....     | .001                        | .0005   |
| Chromium VI.....        | .0001                       | .00005  |
| Manganese total.....    | .011                        | .005  |
| Cyanide total.....      | .0005                       | .0003   |
| Phenols.....            | .0004                       | .0002   |
| pH.....                 | Within the range 6.0 to 9.0 |   |
| English units lb/Mwh    |                             |   |
| TSS.....                | 0.071                       | 0.035   |
| Chromium total.....     | .002                        | .0012   |
| Chromium VI.....        | .0002                       | .0001   |
| Manganese total.....    | .023                        | .012  |
| Cyanide total.....      | .001                        | .0005   |
| Phenols.....            | .0009                       | .0005   |
| pH.....                 | Within the range 6.0 to 9.0 |   |

Provided, however, That for nonelectric furnace smelting processes, the units of the effluent limitations set forth in this section shall be read as "kg/kg of product (lb/ton of product)", rather than "kg/Mwh (lb/Mwh)", and the limitations (except for pH) shall be three (3) times those listed in the table in this section.

## § 424.26 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within

the covered electric furnaces and other smelting operations with wet air pollution control devices subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, § 128.133 of this chapter, shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 424.25; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

## Subpart C—Slag Processing Subcategory

### § 424.30 Applicability; description of the slag processing subcategory.

The provisions of this subpart are applicable to discharges resulting from slag processing, wherein (1) the residual metallic values in the furnace slag are recovered via concentration for return to the furnace, or (2) the slag is "shot" for other further use.

### § 424.31 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

### § 424.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials; manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will

make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic        | Effluent limitations        |  |
|--------------------------------|-----------------------------|--|
|                                | Maximum for any 1 day       | Average of daily values for 30 consecutive days shall not exceed — |
| Metric units kg/kg processed   |                             |  |
| TSS.....                       | 2.659                       | 1.330  |
| Chromium total.....            | .063                        | .031   |
| Manganese total.....           | .532                        | .266   |
| pH.....                        | Within the range 6.0 to 9.0 |  |
| English units lb/ton processed |                             |  |
| TSS.....                       | 5.319                       | 2.659  |
| Chromium total.....            | .106                        | .063   |
| Manganese total.....           | 1.064                       | .532   |
| pH.....                        | Within the range 6.0 to 9.0 |  |

### § 424.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent characteristic         | Effluent Limitations        |   |
|---------------------------------|-----------------------------|---|
|                                 | Maximum for any 1 day       | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units<br>kg/kg processed |                             |   |
| TSS.....                        | 0.271                       | 0.136   |
| Chromium total.....             | .0054                       | .0027   |
| Manganese total.....            | .054                        | .027  |
| pH.....                         | Within the range 6.0 to 9.0 |   |
| English units lb/ton processed  |                             |   |
| TSS.....                        | 0.542                       | 0.271   |
| Chromium total.....             | .011                        | .0054   |
| Manganese total.....            | .108                        | .054  |
| pH.....                         | Within the range 6.0 to 9.0 |   |

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## § 424.34 [Reserved]

## § 424.35 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

| Effluent characteristic        | Effluent limitations        |   |
|--------------------------------|-----------------------------|---|
|                                | Maximum for any 1 day       | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units kg/kg processed   |                             |   |
| TSS.....                       | 0.271                       | 0.136   |
| Chromium total.....            | .0054                       | .0027   |
| Manganese total.....           | .004                        | .002  |
| pH.....                        | Within the range 6.0 to 9.0 |   |
| English units lb/ton processed |                             |   |
| TSS.....                       | 0.542                       | 0.271   |
| Chromium total.....            | .011                        | .0054   |
| Manganese total.....           | .108                        | .004  |
| pH.....                        | Within the range 6.0 to 9.0 |   |

## § 424.36 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the slag processing subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, § 128.133 of this chapter, shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 424.35; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

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**PART II**



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## **ENVIRONMENTAL PROTECTION AGENCY**

■

### **ASBESTOS MANUFACTURING POINT SOURCE CATEGORY**

**Effluent Limitations Guidelines**

**Title 40—Protection of the Environment**  
**CHAPTER I—ENVIRONMENTAL**  
**PROTECTION AGENCY**

**SUBCHAPTER N—EFFLUENT GUIDELINES**  
**AND STANDARDS**

**PART 427—ASBESTOS MANUFACTURING**  
**POINT SOURCE CATEGORY**

On October 30, 1973, notice was published in the *FEDERAL REGISTER*, (38 FR 22606) that the Environmental Protection Agency (EPA or Agency) was proposing effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the asbestos-cement pipe, asbestos-cement sheet, asbestos paper (starch binder), asbestos paper (elastomeric binder), asbestos millboard, asbestos roofing products, and asbestos floor tile subcategories of the asbestos manufacturing category of point sources.

The purpose of this notice is to establish final effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources in the asbestos manufacturing category of point sources, by amending 40 CFR Chapter I, Subchapter N, to add a new Part 427. This final rulemaking is promulgated pursuant to sections 301, 304 (b) and (c), 306 (b) and (c) and 307(c) of the Federal Water Pollution Control Act, as amended, (the Act); 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c), and 1317(c); 86 Stat. 816 et seq.; Pub. L. 92-500. Regulations regarding cooling water intake structures for all categories of point sources under section 316(b) of the Act will be promulgated in 40 CFR 402.

In addition, the EPA is simultaneously proposing a separate provision which appears in the proposed rules section of the *FEDERAL REGISTER*, stating the application of the limitations and standards set forth below to users of publicly owned treatment works which are subject to pretreatment standards under section 307(b) of the Act. The basis of that proposed regulation is set forth in the associated notice of proposed rulemaking.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for the asbestos-cement pipe, asbestos-cement sheet, asbestos paper (starch binder), asbestos paper (elastomeric binder), asbestos millboard, asbestos roofing products, and asbestos floor tile subcategories. In addition, the regulations as proposed were supported by two other documents: (1) the document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Building, Construction and Paper Segment of the Asbestos Manufacturing Point Source Category" (October 1973) and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines, the As-

bestos Products Manufacturing Industry (September 1973). Both of these documents were made available to the public and circulated to interested persons at approximately the time of publication of the notice of proposed rulemaking.

Interested persons were invited to participate in the rulemaking by submitting written comments within 30 days from the date of publication. Prior public participation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties were described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response there-to follows in this document.

(a) *Summary of comments.* The following responded to the request for comments which was made in the preamble to the proposed regulation: Colorado Dept. of Public Health, Michigan Dept. of Natural Resources, Center for Science in the Public Interest, the Mead Corporation, Armstrong Cork Company, Dept. of Health, Education and Welfare, County Sanitation Districts of Los Angeles County, Johns-Manville Corporation, the Flintkote Company, and the Effluent Standards and Water Quality Information Advisory Committee.

Each of the comments received was carefully reviewed and analyzed. The following is a summary of the significant comments and EPA's response to those comments.

(1) A commenter was concerned that the limitations could be interpreted as gross values without consideration of pollutants in incoming waters. This comment applies in general to BOD<sub>5</sub> and COD limitations for most of the subcategories.

The limitations on BOD and COD have been reevaluated. The above comment is significant in all subcategories with a BOD or COD limitation. In the asbestos-cement pipe and asbestos-cement sheet subcategories, the small quantities of BOD added by the process do not warrant a limitation. In the paper subcategories, BOD is incidentally removed by the best practicable control technology currently available (sedimentation). If the suspended solids are controlled to the extent required by the limitations, BOD concentrations will also be reduced. Therefore, the BOD<sub>5</sub> limitation has been eliminated from these subcategories. In the roofing and floor tile subcategories, COD must be retained as a significant control parameter. The raw water entering the processes may contain significant amounts of COD. It is the intent of the Agency that the limitations in these subcategories be considered as net values over water entering the process. This is accomplished by the special definition for COD in the roofing and floor tile subcategories.

(2) Comments were received objecting to the use of the BOD<sub>5</sub> parameter when COD and/or TOC would be a more accurate measure of the organic matter in waste waters from this industry.

EPA agrees with this comment, however, BOD<sub>5</sub> is being dropped as a control parameter for the reasons cited in the above comment.

(3) One commenter pointed out ambiguous statements in the Development Document and the preamble to the proposed regulation where the asbestos content of suspended solids was discussed. On the one hand, the documents claim asbestos may be a large percentage of the suspended solids, and then state that in general this percentage is small.

It is acknowledged that an erroneous conclusion could have been drawn that all subcategories produce suspended solids in process waste waters with a large percentage of asbestos fibers. This conclusion is true in only five of the identified subcategories. In the roofing and floor tile subcategories, suspended solids contain little, if any, asbestos fibers.

(4) One comment stated that asbestos-cement pipe plants should have a no discharge requirement for 1977, since some multi-product plants making asbestos-cement pipe already have no discharge. Allowing pipe plants to have a discharge will encourage the construction of single product, asbestos-cement pipe plants.

EPA has determined that the technology is not available to allow the setting of a no discharge limitation for 1977 or for new sources in the asbestos-cement pipe subcategory. However, there are many incentives for the construction of multiproduct plants. These incentives include substantial savings from decreased water consumption, raw water and waste water treatment, land use, and monitoring requirements. Such built in incentives will not be ignored by industry.

(5) Another comment argued that the existence of one or two plants in a subcategory with no discharge was sufficient basis to set a no discharge limitation for that subcategory. A specific case mentioned was the asbestos paper (starch binder) subcategory.

The experience at the one plant which is apparently achieving no discharge has not been sufficiently documented or been continuous for a substantial period of time to justify applying the technology to all other plants in this subcategory by 1977 accordingly, it is the opinion of EPA that this technology would not qualify as best practicable control technology currently available as defined by the Act.

(6) A question was raised during the comment period concerning the application of best available technology economically achievable to some of the new source performance standards. The commenter claimed that new plants should use best practicable control technology currently available.

In the case of the asbestos paper, asbestos-cement sheet, and asbestos roofing subcategories, the technology does exist for total recycle as proven by a few plants in each subcategory. As mentioned in the previous comment, these few plants were not sufficient to set a no discharge using

best practicable control technology currently available as defined by the Act. A more stringent limitation for new sources is deemed feasible since they have additional flexibilities to optimize in-process controls and end-of-line pollution control measures.

(7) A question was raised with respect to the logic for different ratios of daily to monthly limitations employed in the various subcategories.

These numbers were based on the data available on raw waste loads and treatment efficiencies, and the fluctuations normally experienced in each subcategory. The manufacturing of asbestos-cement products produced greater fluctuations in raw loads than the other subcategories. The regulations therefore reflect this finding, the ratio of daily maximum to monthly average limitations is higher for the asbestos-cement pipe and asbestos-cement sheet subcategories than the other subcategories with allowable discharges.

(b) *Revisions of the proposed regulations prior to promulgation.* As a result of public comments, continuing review and valuation of the proposed regulation by EPA, the following changes have been made in the regulation.

(1) Sections 427.21, 427.31, 427.41, 427.51, 427.61, and 427.71 entitled "Specialized Definitions" now include references to general definitions and methods of analysis in 40 CFR 401 which reduces the need for some specialized definitions in this regulation.

(2) The BOD5 limitations in the asbestos-cement pipe, asbestos-cement sheet, asbestos paper (starch binder) and asbestos paper (elastomeric binder) subcategories have been eliminated. In the asbestos-cement subcategories, the low levels of BOD5 do not warrant a limitation. The incoming water often contains equal or greater amounts of BOD5 than the limitations. In the paper subcategories, the BOD5 is present as starch which is removed by settling. The efficiency of treatment is more accurately measured by the suspended solids parameter.

(3) The COD limitations in the roofing and floor tile subcategories have been retained. However, these limitations can not be used as gross figures due to the presence of relatively high COD values in incoming waters. The regulations as promulgated for these subcategories define COD as the COD added to the process waste waters.

(4) The preamble to the proposed regulations recommended that solid wastes from all subcategories should be disposed of so as to prevent horizontal or vertical migration of asbestos fibers. As explained above in the comment section, not all subcategories produce a solid waste with a significant amount of asbestos fibers. Therefore, in the preamble to the proposed regulation, the discussion of solid waste control in the "Non-water Quality Aspects" section should not be considered to be applicable to solid waste generated by the waste water treatment processes from the roofing and floor tile subcategories.

(5) Section 304(b)(1)(B) of the Act provides for "guidelines" to implement the uniform national standards of section 301(b)(1)(A). Thus Congress recognized that some flexibility was necessary in order to take into account the complexity of the industrial world with respect to the practicability of pollution control technology. In conformity with the Congressional intent and in recognition of the possible failure of these regulations to account for all factors bearing on the practicability of control technology, it was concluded that some provision was needed to authorize flexibility in the strict application of the limitations contained in the regulation where required by special circumstances applicable to individual dischargers. Accordingly, a provision allowing flexibility in the application of the limitations representing best practicable control technology currently available has been added to each subpart, to account for special circumstances that may not have been adequately accounted for when these regulations were developed.

(c) *Economic impact.* The changes to regulations mentioned above will not affect the results of the economic analysis prepared for the proposed regulation.

(d) *Cost-benefit analysis.* The detrimental effects of the constituents of waste waters now discharged by point sources within the building, construction and paper segment of the asbestos manufacturing point source category are discussed in Section VI of the report entitled "Development Document for Effluent Limitations Guidelines for the Building, Construction and Paper Segment of the Asbestos Manufacturing Point Source Category" (February 1974). It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's waterways. Nevertheless, as indicated in Section VI, the pollutants discharged have substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations guidelines includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in Section VIII and in the supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines the Asbestos Products Manufacturing Industry" (September 1973). Implementing the effluent limitations guidelines will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed plants in the asbestos manufacturing industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms,

represent a relatively small percentage of the total capital investment in the industry.

(e) *Solid waste control.* Solid waste control must be considered. The waterborne wastes from the asbestos industry may contain a considerable volume of asbestos particles as a part of the suspended solids pollutant. Best practicable control technology and best available control technology as they are known today, require disposal of the pollutants control technology as they are known removed from waste waters in this industry in the form of solid wastes and liquid concentrates. In some cases these are nonhazardous substances requiring only minimal custodial care. However, some constituents may be hazardous and may require special consideration. In order to ensure long term protection of the environment from these hazardous or harmful constituents, special consideration of disposal sites must be made. All landfill sites where such hazardous wastes are disposed should be selected so as to prevent horizontal and vertical migration of these contaminants to ground or surface waters. In cases where geologic conditions may not reasonably ensure this, adequate precautions (e.g., impervious liners) should be taken to ensure long term protection to the environment from hazardous materials. Where appropriate the location of solid hazardous materials disposal sites should be permanently recorded in the appropriate office of the legal jurisdiction in which the site is located.

(f) *Publication of information on processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants.* In conformance with the requirements of section 304(c), a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Building, Construction and Paper Segment of the Asbestos Manufacturing Point Source Category," has been published and is available for purchase from the Government Printing Office, Washington, D.C. 20401, for a nominal fee.

(g) *Final rulemaking.* In consideration of the foregoing, 40 CFR Chapter I, Subchapter N is hereby amended by adding a new Part 427, Asbestos Manufacturing Point Source Category, to read as set forth below. This final regulation is promulgated as set forth below and shall be effective April 29, 1974.

Dated: February 15, 1974.

JOHN QUARLES,  
Acting Administrator.

## PART 427—ASBESTOS MANUFACTURING POINT SOURCE CATEGORY

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**Subpart A—Asbestos-Cement Pipe Subcategory**

§ 427.10 Applicability; description of the asbestos-cement pipe subcategory.

The provisions of this subpart are applicable to discharges resulting from the process in which asbestos, Portland cement, silica and other ingredients are used in the manufacturing of asbestos-cement pipe.

§ 427.11 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

§ 427.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these

limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic | Effluent limitations              |   |
|-------------------------|-----------------------------------|---|
|                         | Maximum for any 1 day             | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kg/kg of product)   |   |
| TSS                     | 0.57                              | 0.19  |
| pH                      | Within the range 6.0 to 9.0.      |   |
|                         | English units (lb/ton of product) |   |
| TSS                     | 1.14                              | 0.38  |
| pH                      | Within the range 6.0 to 9.0       |   |

§ 427.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutants properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

§ 427.14 [Reserved]

§ 427.15 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of

pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

| Effluent characteristic           | Effluent limitations         |   |
|-----------------------------------|------------------------------|---|
|                                   | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kg/kg of product)   |                              |   |
| TSS.....                          | 0.57                         | 0.19  |
| pH.....                           | Within the range 6.0 to 9.0. |   |
| English units (lb/ton of product) |                              |   |
| TSS.....                          | 1.14                         | 0.38  |
| pH.....                           | Within the range 6.0 to 9.0. |   |

**§ 427.16 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the asbestos-cement pipe subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 427.15; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

**Subpart B—Asbestos-Cement Sheet Subcategory**

**§ 427.20 Applicability: description of the asbestos-cement sheet subcategory.**

The provisions of this subpart are applicable to discharges resulting from the process in which asbestos, Portland cement, silica, and other ingredients are used in the manufacturing of asbestos-cement sheets. Discharges resulting from manufacture of asbestos-cement sheet laboratory tops are specifically excluded from the provisions of this subpart.

**§ 427.21 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

**§ 427.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to col-

lect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic           | Effluent limitations         |   |
|-----------------------------------|------------------------------|---|
|                                   | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kg/kg of product)   |                              |   |
| TSS.....                          | 0.38                         | 0.23  |
| pH.....                           | Within the range 6.0 to 9.0. |   |
| English units (lb/ton of product) |                              |   |
| TSS.....                          | 1.33                         | 0.45  |
| pH.....                           | Within the range 6.0 to 9.0. |   |

**§ 427.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no

discharge of process waste water pollutants to navigable waters.

**§ 427.24 [Reserved]**

**§ 427.25 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: there shall be no discharge of process waste waters pollutants to navigable waters.

**§ 427.26 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the asbestos-cement sheet subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 427.25; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

**Subpart C—Asbestos Paper (Starch Binder) Subcategory**

**§ 427.30 Applicability: description of the asbestos paper (starch binder) subcategory.**

The provisions of this subpart are applicable to discharges resulting from the process in which asbestos, starch binders and other ingredients are used in the manufacture of asbestos paper (starch binder).

**§ 427.31 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

**§ 427.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established.

It is, however, possible that data which would affect these limitations have not been available and, as a result, those limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic           | Effluent limitations        |   |
|-----------------------------------|-----------------------------|---|
|                                   | Maximum for any 1 day       | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kg/kg of product)   |                             |   |
| TSS.....                          | 0.55                        | 0.35  |
| pH.....                           | Within the range 6.0 to 9.0 |   |
| English units (lb/ton of product) |                             |   |
| TSS.....                          | 1.10                        | 0.70  |
| pH.....                           | Within the range 6.0 to 9.0 |   |

**§ 427.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 427.34 [Reserved]**

**§ 427.35 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of

pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 427.36 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the asbestos paper (starch binder) subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 427.35; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

**Subpart D—Asbestos Paper (Elastomeric Binder) Subcategory**

**§ 427.40 Applicability; description of the asbestos paper (elastomeric binder) subcategory.**

The provisions of this subpart are applicable to discharges resulting from the process in which asbestos, elastomeric binder, and other ingredients are used in the manufacture of asbestos paper (elastomeric binder).

**§ 427.41 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

**§ 427.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional

Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator (or the State) shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic           | Effluent limitations         |   |
|-----------------------------------|------------------------------|---|
|                                   | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kg/kg of product)   |                              |   |
| TSS.....                          | 0.55                         | 0.35  |
| pH.....                           | Within the range 6.0 to 9.0. |   |
| English units (lb/ton of product) |                              |   |
| TSS.....                          | 1.10                         | 0.70  |
| pH.....                           | Within the range 6.0 to 9.0  |   |

**§ 427.43 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 427.44 [Reserved]**

**§ 427.45 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

| Effluent characteristic           | Effluent limitations        |   |
|-----------------------------------|-----------------------------|---|
|                                   | Maximum for any 1 day       | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kg/kg of product)   |                             |   |
| TSS.....                          | 0.55                        | 0.35  |
| pH.....                           | Within the range 6.0 to 9.0 |   |
| English units (lb/ton of product) |                             |   |
| TSS.....                          | 1.10                        | 0.70  |
| pH.....                           | Within the range 6.0 to 9.0 |   |

**§ 427.46 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the asbestos paper (elastomeric binder) subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 427.45; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

**Subpart E—Asbestos Millboard Subcategory**

**§ 427.50 Applicability; description of the asbestos millboard subcategory.**

The provisions of this subpart are applicable to discharges resulting from the process in which asbestos in combination with various other materials such as cement, starch, clay, lime, and mineral wool are used in the manufacture of asbestos millboard.

**§ 427.51 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

**§ 427.52 Effluent limitations guidelines** representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established.

It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 427.53 Effluent limitations guidelines** representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 427.54 [Reserved]**

**§ 427.55 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 427.56 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source

within the asbestos millboard subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 427.55; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

**Subpart F—Asbestos Roofing Subcategory**

**§ 427.60 Applicability; description of the asbestos roofing subcategory.**

The provisions of this subpart are applicable to discharges resulting from the process in which asbestos paper is saturated with asphalt or coal tar with the subsequent application of various surface treatments to produce asbestos roofing products.

**§ 427.61 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) COD shall mean COD added to the process waste water.

**§ 427.62 Effluent limitations guidelines** representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator

(or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic           | Effluent limitations         |   |
|-----------------------------------|------------------------------|---|
|                                   | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kg/kg of product)   |                              |   |
| COD.....                          | 0.015                        | 0.008   |
| TSS.....                          | .010                         | .006  |
| pH.....                           | Within the range 6.0 to 9.0. |   |
| English units (lb/ton of product) |                              |   |
| COD.....                          | 0.02                         | 0.016   |
| TSS.....                          | .020                         | .012  |
| pH.....                           | Within the range 6.0 to 9.0. |   |

§ 427.63 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

§ 427.64 [Reserved]

§ 427.65 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: there shall be no discharge of process waste water pollutants to navigable waters.

§ 427.66 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the asbestos millboard subcategory, which is a user of a publicly owned treatment works (and which would be a

new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 427.65; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

#### Subpart G—Asbestos Floor Tile Subcategory

§ 427.70 Applicability; description of the asbestos floor tile subcategory.

The provisions of this subpart are applicable to discharges resulting from the process in which asbestos, polyvinyl chloride resin, chemical stabilizers, limestone, and other fillers are used in the manufacture of asbestos floor tile.

§ 427.71 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The abbreviation "mpc" shall mean 1000 pieces of floor tile.

(c) The term "pieces" shall mean floor tile measured in the standard size of 12" x 12" x 3/32".

(d) COD shall mean COD added to the process waste water.

§ 427.72 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis

of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic           | Effluent limitations         |  |
|-----------------------------------|------------------------------|--|
|                                   | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (kg/mpe of product)  |                              |  |
| COD.....                          | 0.14                         | 0.09   |
| TSS.....                          | .06                          | .04  |
| pH.....                           | Within the range 6.0 to 9.0. |  |
| English units (lb/mpe of product) |                              |  |
| COD.....                          | 0.30                         | 0.18   |
| TSS.....                          | .13                          | .08  |
| pH.....                           | Within the range 6.0 to 9.0. |  |

§ 427.73 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

§ 427.74 [Reserved]

§ 427.75 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: there shall be no discharge of process waste water pollutants to navigable waters.

§ 427.76 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the asbestos floor tile subcategory,

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which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced

into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 427.75: *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

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PART II



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## **ENVIRONMENTAL PROTECTION AGENCY**

■

### **MEAT PRODUCTS POINT SOURCE CATEGORY**

**Effluent Guidelines and Standards**

## Title 40—Protection of the Environment

CHAPTER I—ENVIRONMENTAL  
PROTECTION AGENCYSUBCHAPTER N—EFFLUENT GUIDELINES AND  
STANDARDSPART 432—MEAT PRODUCTS POINT  
SOURCE CATEGORY

On October 29, 1973 notice was published in the *FEDERAL REGISTER*, (38 FR 29858) that the Environmental Protection Agency (EPA or Agency) was proposing effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the simple slaughterhouse subcategory, complex slaughterhouse subcategory, low-processing packinghouse subcategory, and the high-processing packinghouse subcategory of the meat products category of point sources.

The purpose of this notice is to establish final effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources in the meat products category of point sources, by amending 40 CFR Chapter I, Subchapter N, to add a new Part 432. This final rulemaking is promulgated pursuant to sections 301, 304(b) and (c), 306(b) and (c), and 307(c) of the Federal Water Pollution Control Act, as amended, (the Act); 33 U.S.C. 1251, 1311, 1314(b) and (c), 1316(b) and (c), and 1317(c) and; 86 Stat. 816 et seq.; Pub. L. 92-500. Regulations regarding cooling water intake structures for all categories of point sources under 316(b) of the Act will be promulgated in 40 CFR Part 402.

In addition, the EPA is simultaneously proposing a separate provision which appears in the proposed rules section of the *FEDERAL REGISTER*, stating the application of the limitations and standards set forth below to users of publicly owned treatment works which are subject to pretreatment standards under section 307(b) of the Act. The basis of that proposed regulation is set forth in the associated notice of proposed rulemaking.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for the simple slaughterhouse subcategory, complex slaughterhouse subcategory, low-processing packinghouse subcategory and high-processing packinghouse subcategory. In addition, the regulations as proposed were supported by two other documents: (1) the document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Red Meat Processing Segment of the Meat Product and Rendering Processing Point Source Category" (October, 1973) and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines, Meat Packing Industry" (August, 1973). Both of these documents were made available to the public and

circulated to interested persons at approximately the time of publication of the notice of proposed rulemaking.

Interested persons were invited to participate in the rulemaking by submitting written comments within 30 days from the date of publication. Prior public participation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties were described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response thereto follows.

The regulation as promulgated contains important changes from the proposed regulation. The following discussion outlines the reasons why these changes were made and why other suggested changes were not implemented.

(a) *Summary of comments.* The following responded to the request for written comments contained in the preamble to the proposed regulation: U.S. Department of Agriculture; U.S. Department of Health, Education, and Welfare; Water Resources Council; State of Colorado; American Association of Meat Processors; Hillshire Farm Company; Henry A. Lurie and Associates; National Renderers Association; Florida Meat Packers Association; Iowa Beef Processors, Inc.; Farmland Foods, Inc.; American Beef Packers; Bell, Galyardt, and Wells; Los Angeles County Sanitation District; Greyhound Corporation; University of Florida; American Meat Institute; Esmark, Inc.; Spencer Foods, Inc.; State of Michigan; and U.S. Department of the Interior.

Each of the comments received was reviewed and analyzed carefully. The following is a summary of the significant comments and the Agency's response to those comments.

(1). The comment was made that the definitions of the subcategories were not clear regarding operations which slaughtered animals and produced fresh meat cuts smaller than quarter carcasses.

Subcategory definitions have been developed to account for the basic discrete differences which may be encountered for operations in the meat packing industry. Thus, slaughterhouses are generally differentiated by raw waste loads for the production processes involved (including by-product recovery). At the same time, any given slaughterhouse slaughters livestock and provides a primary final product of fresh meat which is usually shipped from the premises in units of "quarters" or "sides" (beef) or whole carcasses (hogs, sheep). Smaller units (roasts, steaks) may occasionally be provided as a secondary final product, and a few slaughterhouses produce these smaller "cuts" as the major final product. With respect to these latter operations, the Agency agrees that the definitions should be more explicit to avoid confusion. Accordingly, the definition of a slaughterhouse has been modified to reflect the wide size range of fresh meat cuts which may be produced.

(2) Several comments addressed the validity of nutrient limitations for new sources on the basis that data are inadequate and that the necessary technology has not been demonstrated for meat wastes.

The Agency agrees that the data regarding nitrates and phosphorus is limited. Documentation of nitrate control based upon municipal pilot plant studies has apparently not progressed to a point of reasonable assurance for success on meat packing wastes. Highly efficient biological treatment plants in the industry are discharging low nitrate loads, but the reason or mechanism of removal in the treatment process is not fully documented since nitrate control was not encompassed by original plant design or operation. As a consequence, it does not appear reasonable to presume that new sources could avail themselves of nitrate controls over and above the control achieved in the course of efficient biological treatment with concurrent ammonia reduction. A somewhat different situation exists with phosphorus. In this instance, EPA is not aware of specific instances where extensive phosphorus removal has been demonstrated in this industry. At the same time, the comments seem to reflect a general consensus that phosphorus control could be achieved by new sources at a significant cost using technology shown to be successful on other waste types. The problem is the scarcity of data to fully characterize the extent to which phosphorus exists in waste water flows, in turn how much if any phosphorus must be removed or permitted to be discharged. In addition, housekeeping and in-process controls appear to be of major consequence since those plants using extensive dry cleanup procedures may expect lower phosphorus loads in raw wastes than might otherwise be the case. Because of the lack of reasonably definitive information upon which to base limitations for nitrates and phosphorus, EPA has deleted requirements to control these nutrients from the standards of performance for new sources.

In contrast to nitrates and phosphorus, there is a significant amount of information on the parameter ammonia. In this case, several existing plants are achieving ammonia reduction coincident with the efficiently operated plants. Moreover, there is a substantial volume of evidence to show that activated sludge treatment enhances the removal of ammonia. Therefore, limitations for ammonia commensurate with efficient existing operations will be specified for new sources.

(3) A number of comments reflected concern that the types of technology used as a basis for the limitations, particularly where lagoons or ponds served as the final stage of treatment, would not reliably meet the limitations even for the "exemplary" plants.

The issue of reliability is primarily a combination of statistical validity of the available data on exemplary plants combined with the design and operation of

production and treatment plants. In the case of statistical validity, the data upon which the proposed limits were based encompassed information from the literature, individual plants and EPA permits and research sources. Both refined statistical methods (such as regression analysis) and empirical engineering judgments were employed to interpret the results of the various data analyses. The proposed limitations thus developed were based entirely on the data itself and the limits are generally achieved by the "exemplary" plants in the industry. Any other plants are slightly above the limits in effluent quality but the nature of the treatment facilities for these plants is such that minor improvements in facilities, housekeeping and full-time attention to treatment plant operation may be expected to improve discharges to comply with the limitations. Nevertheless, EPA was provided with additional data on some plants particularly regarding seasonal performance fluctuations as part of the comments on the proposed regulations. These data related primarily to plants in the simple slaughterhouse subcategory and showed that two plants in the subcategory were actually far superior to the average of the remaining "exemplary" plants; as a result these plants routinely performed beyond the scope of best practicable technology. Consequently, the limitations for certain parameters in this subcategory have been marginally adjusted. Because the performance of treatment systems for this subcategory complemented the determinations for limitations in other subcategories, limits in the other subcategories have been similarly revised. In no case do the revisions compromise the validity of the original exemplary plants; rather, the revisions now appear to more properly reflect the day-to-day capability of the exemplary plants in meeting discharge requirements. Moreover, because the data (which included industry data and on-site sampling when temperature effects would be expected to be pronounced) reflected seasonal performance for plants located generally in northern climates, this capability is reiterated for seasonal variations, particularly cold weather conditions. Finally, an empirical formula presented in the Development Document to be used in determining the limitations for the unusually large packinghouses (the largest plants in the high-processing packinghouse subcategory in terms of processed meat products relative to animals slaughtered) was omitted from the proposed regulation due to a typographical error. This formula has been included in the promulgated regulation.

(4) The suggestion was made that requirements for disinfection of waste waters were redundant with water quality standards.

Available data shows waste waters in this industry are frequently high in coliform (indicator organism) bacteria. Raw waste water may contain discharges from animal holding pens and other sources which have a potential for ad-

verse health impact on humans or livestock. Disinfection, which is currently practiced (or indirectly achieved without chlorination) by plants in the industry, is consequently a necessary adjunct to the effluent limits on other parameters. Limitations have been set which are readily achievable by chlorination, ozonation or other possible method for disinfecting water. Water quality standards do not render the effluent limits redundant since they relate only to the possible need to disinfect to a higher degree than required by the effluent limitations in order to protect in-stream quality. Revisions have been made in the Development Document commensurate with the costs incurred for disinfection.

(5) The suggestion was made that the definitions of the terms "LWK" and "ELWK" should include weight of animals as well as number to help clarify determinations of plant production.

This comment is valid. The definitions of both "LWK" (live weight killed) and "ELWK" (equivalent live weight killed) have been modified to explain that the terms both refer to total weights of animals slaughtered for a given time frame. Moreover, in the case of "ELWK", additional explanatory discussion has been added to the Development Document as a guide for estimating "ELWK" when actual production information is not known.

(6) Several comments suggested that more emphasis be given to the concept of "no discharge" using land application of treated effluents.

The Development Document has been revised to amplify the discussion of this technology. Except for some plants located in arid areas of the country and an unknown number of very small operations, "no discharge" technology is not practiced within this industry. However, several plants are contemplating or initiating plans in this regard. The concept certainly has great potential for this industry particularly since many large plants are being constructed in rural areas where land can be available for crop irrigation or similar activity.

(7) Some correspondents endorsed the proposal made to the Administrator by the Effluent Standards and Water Quality Information Advisory Committee that a significantly different approach be taken in the development of effluent guidelines generally.

The committee's proposal is under evaluation as a contribution toward future refinements on guidelines for some industries. The committee has indicated that their proposed methodology could not be developed in sufficient time to be available for the current phase of guideline promulgation, which is proceeding according to a court-ordered schedule. Its present state of development does not provide sufficient evidence to warrant the Agency's delaying issuance of any standard in hopes that an alternative approach might be preferable.

(8) A number of commenters suggested that the ratio (1.66) of maximum daily limitations to the maximum aver-

age for thirty consecutive days was too low.

During the course of the analysis resulting in the adjustments discussed in item (3) above, a re-analysis of available data was also conducted to check on the relationship of daily values to 30 consecutive day averages. An analysis of available data revealed an excursion of daily to thirty day values of between 1.5 and 2.0. Data points were found to group rather closely within this relationship from which an average ratio of 1.66 was given in the proposed regulation. However, it was found that a substantial grouping of daily values between 1.66 and 2.0 existed apparently attributable to normal variations within the treatment system. As a result, EPA has concluded that a more reliable, conservative ratio of 2.0 reasonably accounts for day-to-day fluctuations.

(9) The comment was made that the ammonia limitation under best available technology economically achievable was too stringent.

The ammonia limitation was derived from engineering judgment as to the reliable capability of the air stripping method of ammonia control. The majority of information on the concept was derived from pilot data and literature on the use of the concept in petroleum refinery waste treatment and municipal tertiary treatment. It would appear that the limitation is a reasonable current estimate of the capability of ammonia stripping techniques for controlling this parameter. As additional information on this or other methods of ammonia control is developed through improved technology, the additional information will be considered when subsequent reviews of these limitations are conducted as required by the Act.

(10) The comment was made that the oil and grease limitations of 10 mg/l was too stringent because concentrations in this low range could not be reliably measured.

The Agency agrees that the analytical test procedure (hexane solubles analysis) used historically to determine the data reported in the Development Document is of potentially questionable accuracy at very low concentrations. At the same time, the vast majority of comments submitted by the industry specifically indicated that this concentration could be "achieved" with best practicable control technology as long as the poor reliability of the test procedure was recognized. In order to counteract legitimate variations due to test results for oil and grease in small amounts, limitations for this parameter have been re-specified as a function of production load which effectively permits concentrations to fluctuate to some degree while limiting the amount of material discharged from the treatment facility.

(11) The comment was made that the cost to the industry for meeting the proposed effluent limitations were understated particularly for best practicable control technology.

As described in the Development Document, both the individual plant capital

costs and those for the entire industry for complying with limitations based upon best practicable control technology currently available, are predicated upon an assumption derived from available data. The data revealed that except for plants in municipalities, no evidence was discovered which showed untreated or primary treated wastes being discharged to streams. Thus, the assumption was made that all plants presently discharging directly to navigable waters already have installed basic anaerobic-aerobic lagoon treatment facilities or the equivalent thereof.

The best plants in the industry were generally found to include at least mechanical aeration processes in addition to the basic anaerobic-aerobic treatment. This general scope of treatment technology provided a basis for the limitations. As a consequence, costs were developed as a function of the incremental costs required to upgrade existing treatment facilities by adding mechanically aerated processes. Costs per plant therefore reflect the estimates for adding this feature for a "typical" plant in each subcategory. Data submitted by commenters showed such costs to range between \$50,000 and \$70,000 for adding mechanical aeration to existing facilities, and thus confirm the Agency's original estimates in this regard. Also, as noted above, costs of disinfection have been added to original estimates of plant and industry costs.

In the opinion of EPA, this modification of existing treatment plants coupled with good housekeeping and careful operation of treatment facilities will be sufficient to comply with the stated limits. At the same time, it should be acknowledged that certain plants may have unusual circumstances which would dictate more extensive and costly modifications particularly if the decision was made to achieve an effluent quality generally superior to that required by the limits. However, the industry has already incurred a substantial investment in waste treatment to achieve the current, relatively high standard of pollution control and the cost of the additional requirements imposed by the stated limitation is not expected to diverge greatly from the estimates provided in the Development Document.

The estimates of costs to the industry derive from an analysis of data provided by the industry and profiles of the industry developed primarily from statistics on federally inspected plants. From this information, estimates of the number of plants in each subcategory were determined. Individual "typical" plant costs multiplied by the number of plants provided the total industry cost estimates of \$50 million to \$70 million for the period 1974-1977. This compares very favorably to industry capital cost estimates of \$100 million for both water and air pollution control in the period 1971-1976.

(b) *Revision of the proposed regulation prior to promulgation.* As a result of public comments and continuing review and evaluation of the proposed regulations by the EPA, the following

changes have been made in the regulation.

(1) The language of the definition of slaughterhouses has been modified slightly to clarify subcategorization of some operations which may primarily produce fresh meat cuts smaller than quarters.

(2) Definitions of the terms for units of production, "LWK" (liveweight killed) and "ELWK" (equivalent liveweight killed) have been modified to show that the weight of animals slaughtered is the fundamental production unit.

(3) Except for the pollutant ammonia, requirements for nutrient removal (nitrates and phosphorus) have been deleted from standards of performance for new sources.

(4) Except for the subcategory of high-processing packinghouses, the limitations for BOD<sub>5</sub> and TSS have been modified in all subcategories to more effectively reflect the average of the performance of the exemplary treatment plants in the industry. For the high-processing packinghouse subcategory, an empirical formula has been added for determining the limitations for those plants which generally have ratios of processed products to liveweight killed that are higher than the 0.55 average for plants in the subcategory.

(5) The language of the proposed pretreatment requirements for new sources has been modified to resolve an inconsistency between pretreatment and the standards of performance for new sources. The pollutant ammonia is included in the standards of performance; the standard is substantially based upon the levels attained coincident with efficient biological treatment. As proposed, new source pretreatment would have necessitated unnecessary and extremely costly duplication of treatment plants in that the meat products plants would have to fully treat raw wastes to reduce the ammonia, while the same levels of reduction may be expected by publicly owned treatment works. Consequently, the pretreatment requirements for new sources in all subcategories have been revised, that process waste waters from all subcategories may be discharged to publicly owned treatment works without pretreatment, so long as such discharges comply with the applicable provisions of Part 128 of this chapter.

(6) The ratio of maximum daily values to maximum averages for thirty consecutive days has been changed from 1.66 to 2.0 for BOD<sub>5</sub>, TSS, oil and grease, and ammonia for all effluent limitations and standards of performance for new sources for all subcategories.

(7) Section 304(b)(1)(B) of the Act provides for "guidelines" to implement the uniform national standards of Section 301(b)(1)(A). Thus Congress recognized that some flexibility was necessary in order to take into account the complexity of the industrial world with respect to the practicability of pollution control technology. In conformity with the Congressional intent and in recognition of the possible failure of these regulations to account for all factors bear-

ing on the practicability of control technology, it was concluded that some provision was needed to authorize flexibility in the strict application of the limitations contained in the regulation where required by special circumstances applicable to individual dischargers. Accordingly, a provision allowing flexibility in the application of the limitations representing best practicable control technology currently available has been added to each subpart, to account for special circumstances that may not have been adequately accounted for when these regulations were developed.

(c) *Economic impact.* The above mentioned changes will not significantly affect the conclusions of the economic study of the proposed regulations.

(d) *Cost-benefit analysis.* The detrimental effects of the constituents of waste waters now discharged by point sources within the red meat processing segment of the meat products point source category are discussed in Section VI of the report entitled "Development Document for Effluent Limitations Guidelines for the Red Meat Processing Segment of the Meat Products and Rendering Processing Point Source Category" (February 1974). It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's waterways. Nevertheless, as indicated in Section VI, the pollutants discharged have substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations guidelines includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in Section VIII and in the supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines for the Meat Packing Industry" (August 1973). Implementing the effluent limitations guidelines will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed plants in the meat products industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms, represent a relatively small percentage of the total capital investment in the industry.

(e) *Publication of information on processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants.* In conformance with the requirements of section 304(c), a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Red Meat Processing Segment of the Meat Products and Rendering Processing Point Source

Category," has been published and is available for purchase from the Government Printing Office, Washington, D.C. 20401 for a nominal fee.

(f) *Final rulemaking.* In consideration of the foregoing, 40 CFR Chapter I, Subchapter N is hereby amended by adding a new Part 432, Meat Products Manufacturing Point Source Category, to read as set forth below. This final regulation is promulgated as set forth below and shall be effective April 29, 1974.

Dated: February 15, 1974.

JOHN QUARLES,  
Acting Administrator.

**Subpart A—Simple Slaughterhouse Subcategory**

- Sec.  
432.10 Applicability; description of the simple slaughterhouse subcategory.  
432.11 Specialized definitions.  
432.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
432.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.  
432.14 Reserved.  
432.15 Standards of performance for new sources.  
432.16 Pretreatment standards for new sources.

**Subpart B—Complex Slaughterhouse Subcategory**

- 432.20 Applicability; description of the complex slaughterhouse subcategory.  
432.21 Specialized definitions.  
432.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
432.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.  
432.24 Reserved.  
432.25 Standards of performance for new sources.  
432.26 Pretreatment standard for new sources.

**Subpart C—Low Processing Packinghouse Subcategory**

- 432.30 Applicability; description of the low processing packinghouse subcategory.  
432.31 Specialized definitions.  
432.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
432.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.  
432.34 Reserved.  
432.35 Standards of performance for new sources.  
432.36 Pretreatment standards for new sources.

**Subpart D—High Processing Packinghouse Subcategory**

- 432.40 Applicability; description of the high processing packinghouse subcategory.

- Sec.  
432.41 Specialized definitions.  
432.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
432.43 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.  
432.44 Reserved.  
432.45 Standards of performance for new sources.  
432.46 Pretreatment standards for new sources.

**Subpart A—Simple Slaughterhouse Subcategory**

**§ 432.10 Applicability; description of the simple slaughterhouse subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of red meat carcasses, in whole or part, by simple slaughterhouses.

**§ 432.11 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "slaughterhouse" shall mean a plant that slaughters animals and has as its main product fresh meat as whole, half or quarter carcasses or smaller meat cuts.

(c) The term "simple slaughterhouse" shall mean a slaughterhouse which accomplishes very limited by-product processing, if any, usually no more than two of such operations as rendering, paunch and viscera handling, blood processing, hide processing, or hair processing.

(d) The term "LWK" (live weight killed) shall mean the total weight of the total number of animals slaughtered during the time to which the effluent limitations apply; i.e., during any one day or any period of thirty consecutive days.

(e) The term "ELWK" (equivalent live weight killed) shall mean the total weight of the total number of animals slaughtered at locations other than the slaughterhouse or packinghouse, which animals provide hides, blood, viscera or renderable materials for processing at that slaughterhouse, in addition to those derived from animals slaughtered on site.

(f) The term "oil and grease" shall mean those components of process waste water amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, EPA, Analytical Quality Control Laboratory, page 217.

**§ 432.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant,

raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to on-site slaughter or subsequent meat, meat product or by-product processing of carcasses of animals slaughtered on-site, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic | Effluent limitations                         |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                        | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units<br>(kilograms per 1,000 kg LWK) |   |
| BOD <sub>5</sub> .....  | 0.24   | 0.12  |
| TSS.....                | .40  | .20   |
| Oil and grease.....     | .12  | .06   |
| Fecal coliform.....     | Maximum at any time 400 mpn/100 ml.          |   |
| pH.....                 | Within the range 6.0 to 9.0.                 |   |
|                         | English units<br>(pounds per 1,000 lb LWK)   |   |
| BOD <sub>5</sub> .....  | 0.24   | 0.12  |
| TSS.....                | .40  | .20   |
| Oil and grease.....     | .12  | .06   |
| Fecal coliform.....     | Maximum at any time 400 mpn/100 ml.          |   |
| pH.....                 | Within the range 6.0 to 9.0.                 |   |

(b) The following limitations establish the quantity or quality of pollutants

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or pollutant properties, controlled by this section and attributable to the processing (defleshing, washing and curing) of hides derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.12(a):

| Effluent characteristic                    | Effluent limitations  |   |
|--|-----------------------|---|
|  | Maximum for any 1 day | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg ELWK) |                       |   |
| BOD <sub>5</sub> .....                     | 0.04                  | 0.02  |
| TSS.....                                   | .08                   | .04   |
| English units (pounds per 1,000 lb ELWK)   |                       |   |
| BOD <sub>5</sub> .....                     | 0.04                  | 0.02  |
| TSS.....                                   | .08                   | .04   |

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the processing of blood derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.12(a):

| Effluent characteristic                    | Effluent limitations  |   |
|--|-----------------------|---|
|  | Maximum for any 1 day | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg ELWK) |                       |   |
| BOD <sub>5</sub> .....                     | 0.04                  | 0.02  |
| TSS.....                                   | .08                   | .04   |
| English units (pounds per 1,000 lb ELWK)   |                       |   |
| BOD <sub>5</sub> .....                     | 0.04                  | 0.02  |
| TSS.....                                   | .08                   | .04   |

(d) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the wet or low temperature rendering of material derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.12(a):

| Effluent characteristic                    | Effluent limitations  |   |
|--|-----------------------|---|
|  | Maximum for any 1 day | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg ELWK) |                       |   |
| BOD <sub>5</sub> .....                     | 0.06                  | 0.03  |
| TSS.....                                   | .12                   | .06   |
| English units (pounds per 1,000 lb ELWK)   |                       |   |
| BOD <sub>5</sub> .....                     | 0.06                  | 0.03  |
| TSS.....                                   | .12                   | .06   |

(e) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the dry rendering of material derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.12(a):

| Effluent characteristic                    | Effluent limitations         |   |
|--|------------------------------|---|
|  | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg ELWK) |                              |   |
| BOD <sub>5</sub> .....                     | 0.02                         | 0.01  |
| TSS.....                                   | .01                          | .02   |
| pH.....                                    | Within the range 6.0 to 9.0. |   |
| English units (pounds per 1,000 lb ELWK)   |                              |   |
| BOD <sub>5</sub> .....                     | 0.02                         | 0.01  |
| TSS.....                                   | .04                          | .02   |
| pH.....                                    | Within the range 6.0 to 9.0. |   |

§ 432.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to on-site slaughter or subsequent meat, meat product or by-product processing of carcasses of animals slaughtered on-site, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable.

| Effluent characteristic                   | Effluent limitations                |   |
|---|-------------------------------------|---|
|   | Maximum for any 1 day               | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg LWK) |                                     |   |
| BOD <sub>5</sub> .....                    | 0.06                                | 0.03  |
| TSS.....                                  | .10                                 | .05   |
| pH.....                                   | Within the range 6.0 to 9.0.        |   |
| English units (pounds per 1,000 lb LWK)   |                                     |   |
| BOD <sub>5</sub> .....                    | 0.06                                | 0.03  |
| TSS.....                                  | .10                                 | .05   |
| Milligrams per liter—effluent             |                                     |   |
| Ammonia.....                              | 8.0                                 | 4.0   |
| Oil and grease.....                       | 10.0                                |   |
| Fecal coliform.....                       | Maximum at any time 400 mpv/100 ml. |   |
| pH.....                                   | Within the range 6.0 to 9.0.        |   |

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the processing of blood derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.13(a):

| Effluent characteristic                    | Effluent limitations  |   |
|--|-----------------------|---|
|  | Maximum for any 1 day | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg ELWK) |                       |   |
| BOD <sub>5</sub> .....                     | 0.014                 | 0.007   |
| TSS.....                                   | .026                  | .013  |
| English units (pounds per 1,000 lb ELWK)   |                       |   |
| BOD <sub>5</sub> .....                     | 0.014                 | 0.007   |
| TSS.....                                   | .026                  | .013  |

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the wet or low temperature rendering of material derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.13(a):

| Effluent characteristic                    | Effluent limitations  |   |
|--|-----------------------|---|
|  | Maximum for any 1 day | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg ELWK) |                       |   |
| BOD <sub>5</sub> .....                     | 0.02                  | 0.01  |
| TSS.....                                   | .04                   | .02   |
| English units (pounds per 1,000 lb ELWK)   |                       |   |
| BOD <sub>5</sub> .....                     | 0.02                  | 0.01  |
| TSS.....                                   | .04                   | .02   |

(d) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the dry rendering of material derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.13(a):

| Effluent characteristic                 | Effluent limitations         |  |
|---|------------------------------|--|
|   | Maximum for any 1 day        | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (kilograms per 1,000 ELWK) |                              |  |
| BOD <sub>5</sub> .....                  | 0.006                        | 0.003  |
| TSS.....                                | .014                         | .007   |
| pH.....                                 | Within the range 6.0 to 9.0. |  |
| English units (pounds per 1,000 ELWK)   |                              |  |
| BOD <sub>5</sub> .....                  | 0.006                        | 0.003  |
| TSS.....                                | .014                         | .007   |

§ 432.14 [Reserved]

§ 432.15 Standards of performance for new sources.

(a) The following standards of performance establish the quantity or quality of pollutants or pollutant properties

controlled by this section and attributable to on-site slaughter or subsequent meat, meat product or by-product processing of carcasses of animals slaughtered on-site which may be discharged by a new source subject to the provisions of this subpart: the limitations shall be as specified in § 432.12(a), with the exception that in addition to the pollutants or pollutant properties controlled by that subsection, discharges of ammonia shall not exceed the limitations set forth below:

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia.....            | 0.34                                       | 0.17  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do.....                 | 0.34                                       | 0.17  |

(b) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the processing of blood derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a new source subject to the provisions of this subpart, in addition to the discharge allowed by §§ 432.15(a) and 432.12(c):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia.....            | 0.06                                       | 0.03  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do.....                 | 0.06                                       | 0.03  |

(c) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the wet or low temperature rendering of material derived from animals slaughtered at locations other than slaughterhouse, which may be discharged by a new source subject to the provisions of this subpart; in addition to the discharge allowed by §§ 432.15(a) and 432.12(d):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia.....            | 0.10                                       | 0.05  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do.....                 | 0.10                                       | 0.05  |

(d) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the dry rendering of material derived from animals slaughtered at locations other than the slaughterhouse which may be discharged by a new source subject to the provisions of this subpart, in addition to the discharge allowed by §§ 432.15(a) and 432.12(e):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia.....            | 0.04                                       | 0.02  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do.....                 | 0.04                                       | 0.02  |

#### § 432.16 Pretreatment standards for new sources.

The pretreatment standards for incompatible pollutants under section 307(c) of the Act for a source within the simple slaughterhouse subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except for § 128.133. Subject to the provisions of 40 CFR Part 128, process waste waters from a new source subject to the provisions of this subpart may be introduced into a publicly owned treatment works.

#### Subpart B—Complex Slaughterhouse Subcategory

#### § 432.20 Applicability; description of the complex slaughterhouse subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of red meat carcasses, in whole or part, by complex slaughterhouses.

#### § 432.21 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "slaughterhouse" shall mean a plant that slaughters animals and has as its main product fresh meat as whole, half or quarter carcasses or smaller meat cuts.

(c) The term "complex slaughterhouse" shall mean a slaughterhouse that accomplishes extensive by-product processing, usually at least three of such operations as rendering, paunch and viscera handling, blood processing, hide processing, or hair processing.

(d) The term "LWK" (live weight killed) shall mean the total weight of the total number of animals slaughtered during the time to which the effluent limitations apply; i.e., during any one day or any period of thirty consecutive days.

(e) The term "ELWK" (equivalent live weight killed) shall mean the total weight of the total number of animals slaughtered at locations other than the slaughterhouse or packinghouse, which animals provide hides, blood, viscera or renderable materials for processing at that slaughterhouse, in addition to those derived from animals slaughtered on site.

(f) The term "oil and grease" shall mean those components of process waste water amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, EPA, Analytical Quality Control Laboratory, page 217.

§ 432.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to on-site slaughter or subsequent meat, meat product or by-product processing of carcasses of animals slaughtered on-site, which may be discharged by a point source subject to the provisions of this subpart after application of the best

practical control technology currently available:

| Effluent characteristic                   | Effluent limitations                |   |
|---|-------------------------------------|---|
|   | Maximum for any 1 day               | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg LWK) |                                     |   |
| BOD <sub>5</sub> .....                    | 0.42                                | 0.21  |
| TSS.....                                  | .50                                 | .25   |
| Oil and grease.....                       | .16                                 | .08   |
| Fecal coliform.....                       | Maximum at any time 400 mpn/100 ml. |   |
| pH.....                                   | Within the range 6.0 to 9.0.        |   |
| English units (pounds per 1,000 lb LWK)   |                                     |   |
| BOD <sub>5</sub> .....                    | 0.42                                | 0.21  |
| TSS.....                                  | .50                                 | .25   |
| Oil and grease.....                       | .16                                 | .08   |
| Fecal coliform.....                       | Maximum at any time 400 mpn/100 ml. |   |
| pH.....                                   | Within the range 6.0 to 9.0.        |   |

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the processing (defleshing, washing and curing) of hides derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.22(a):

| Effluent characteristic                    | Effluent limitations  |   |
|--|-----------------------|---|
|  | Maximum for any 1 day | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg ELWK) |                       |   |
| BOD <sub>5</sub> .....                     | 0.04                  | 0.02  |
| TSS.....                                   | .08                   | .04   |
| English units (pounds per 1,000 lb ELWK)   |                       |   |
| BOD <sub>5</sub> .....                     | 0.04                  | 0.02  |
| TSS.....                                   | .08                   | .04   |

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the processing of blood derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.22(a):

| Effluent characteristic                    | Effluent limitations  |   |
|--|-----------------------|---|
|  | Maximum for any 1 day | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg ELWK) |                       |   |
| BOD <sub>5</sub> .....                     | 0.04                  | 0.02  |
| TSS.....                                   | .08                   | .04   |
| English units (pounds per 1,000 lb ELWK)   |                       |   |
| BOD <sub>5</sub> .....                     | 0.033                 | 0.02  |
| TSS.....                                   | .066                  | .04   |

(d) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the wet or low temperature rendering of material derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.22(a):

| Effluent characteristic                    | Effluent limitations  |   |
|--|-----------------------|---|
|  | Maximum for any 1 day | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg ELWK) |                       |   |
| BOD <sub>5</sub> .....                     | 0.06                  | 0.03  |
| TSS.....                                   | .12                   | .06   |
| English units (pounds per 1,000 lb ELWK)   |                       |   |
| BOD <sub>5</sub> .....                     | 0.06                  | 0.03  |
| TSS.....                                   | .12                   | .06   |

(e) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the dry rendering of material derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.22(a):

| Effluent characteristic                    | Effluent limitations  |   |
|--|-----------------------|---|
|  | Maximum for any 1 day | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg ELWK) |                       |   |
| BOD <sub>5</sub> .....                     | 0.02                  | 0.01  |
| TSS.....                                   | .04                   | .02   |
| English units (pounds per 1,000 lb ELWK)   |                       |   |
| BOD <sub>5</sub> .....                     | 0.02                  | 0.01  |
| TSS.....                                   | .04                   | .02   |

§ 432.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to on-site slaughter or subsequent meat, meat product or by-product processing of carcasses of animals slaughtered on-site, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent characteristic                   | Effluent limitations                |   |
|---|-------------------------------------|---|
|   | Maximum for any 1 day               | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg LWK) |                                     |   |
| BOD <sub>5</sub> .....                    | 0.08                                | 0.04  |
| TSS.....                                  | .14                                 | .07   |
| Within the range 6.0 to 9.0.              |                                     |   |
| English units (pounds per 1,000 lb LWK)   |                                     |   |
| BOD <sub>5</sub> .....                    | 0.08                                | 0.04  |
| TSS.....                                  | .14                                 | .07   |
| Milligrams per liter—effluent             |                                     |   |
| Ammonia.....                              | 8.0                                 | 4.0   |
| Oil and grease.....                       | 10.0                                |   |
| Fecal coliform.....                       | Maximum at any time 400 mpn/100 ml. |   |
| pH.....                                   | Within the range 6.0 to 9.0.        |   |

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to this processing of blood derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.23(a):

| Effluent characteristic                    | Effluent limitations  |   |
|--|-----------------------|---|
|  | Maximum for any 1 day | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg ELWK) |                       |   |
| BOD <sub>5</sub> .....                     | 0.014                 | 0.007   |
| TSS.....                                   | .026                  | .013  |
| English units (pounds per 1,000 lb ELWK)   |                       |   |
| BOD <sub>5</sub> .....                     | 0.014                 | 0.007   |
| TSS.....                                   | .026                  | .013  |

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the wet or low temperature rendering of material derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.23(a):

| Effluent characteristic                    | Effluent limitations  |   |
|--|-----------------------|---|
|  | Maximum for any 1 day | Average of daily values for 30 consecutive days shall not exceed— |
| Metric units (kilograms per 1,000 kg ELWK) |                       |   |
| BOD <sub>5</sub> .....                     | 0.02                  | 0.01  |
| TSS.....                                   | .04                   | .02   |
| English units (pounds per 1,000 lb ELWK)   |                       |   |
| BOD <sub>5</sub> .....                     | 0.02                  | 0.01  |
| TSS.....                                   | .04                   | .02   |

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(d) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the dry rendering of material derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.23(a):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub> .....  | 0.006                                      | 0.003   |
| TSS.....                | .014                                       | .007  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub> .....  | 0.006                                      | 0.003   |
| TSS.....                | .014                                       | .007  |

## § 432.24 [Reserved]

## § 432.25 Standards of performance for new sources.

(a) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to on-site slaughter or subsequent meat, meat product or by product processing of carcasses of animals slaughtered on-site which may be discharged by a new source subject to the provisions of this subpart: The limitations shall be as specified in § 432.22(a), with the exception that in addition to the pollutants or pollutant properties controlled by that subsection, discharges of ammonia shall not exceed the limitations set forth below:

| Effluent characteristic | Effluent limitations                      |   |
|-------------------------|---|---|
|                         | Maximum for any 1 day                     | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg LWK) |   |
| Ammonia.....            | 0.48                                      | 0.24  |
|                         | English units (pounds per 1,000 lb LWK)   |   |
| Do.....                 | 0.48                                      | 0.24  |

(b) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the processing of blood derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a new source subject to the provisions of this subpart, in addition to the discharge allowed by §§ 432.25(a) and 432.22(c):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia.....            | 0.06                                       | 0.03  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do.....                 | 0.06                                       | 0.03  |

(c) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the wet or low temperature rendering of material derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a new source subject to the provisions of this subpart, in addition to the discharge allowed by §§ 432.25(a) and 432.22(d):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia.....            | 0.10                                       | 0.05  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do.....                 | 0.10                                       | 0.05  |

(d) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the dry rendering of material derived from animals slaughtered at locations other than the slaughterhouse, which may be discharged by a new source subject to the provisions of this subpart, in addition to the discharge allowed by §§ 432.25(a) and 432.22(e):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia.....            | 0.04                                       | 0.02  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do.....                 | 0.04                                       | 0.02  |

## § 432.26 Pretreatment standards for new sources.

The pretreatment standards for incompatible pollutants under section 307 (c) of the Act for a source within the simple slaughterhouse subcategory,

which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except for § 128.133. Subject to the provisions of 40 CFR Part 128, process waste waters from a new source subject to the provisions of this subpart may be introduced into a publicly owned treatment works.

## Subpart C—Low-Processing Packinghouse Subcategory

### § 432.30 Applicability; description of the low-processing packinghouse subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of red meat carcasses in whole or part, by low-processing packinghouses.

### § 432.31 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "packinghouse" shall mean a plant that both slaughters animals and subsequently processes carcasses into cured, smoked, canned or other prepared meat products.

(c) The term "low processing packinghouse" shall mean a packinghouse that processes no more than the total animals killed at that plant, normally processing less than the total kill.

(d) The term "LWK" (live weight killed) shall mean the total weight of the total number of animals slaughtered during the time to which the effluent limitations apply; i.e., during any one day or any period of thirty consecutive days.

(e) The term "ELWK" (equivalent live weight killed) shall mean the total weight of the total number of animals slaughtered at location other than the slaughterhouse or packinghouse, which animals provide hides, blood, viscera or renderable materials for processing at that slaughterhouse, in addition to those derived from animals slaughtered on-site.

(f) The term "oil and grease" shall mean those components of process waste water amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, EPA, Analytical Quality Control Laboratory, page 217.

### § 432.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology

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available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to on-site slaughter or subsequent meat, meat product or byproduct, processing of carcasses of animals slaughtered on-site, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub> .....  | 0.34                                       | 0.17  |
| TSS.....                | .48  | .24   |
| Oil and grease.....     | .16  | .08   |
| Fecal coliform.....     | Maximum at any time 400 mpn/100 ml.        |   |
| pH.....                 | Within the range 6.0 to 9.0.               |   |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub> .....  | 0.34                                       | 0.17  |
| TSS.....                | .48  | .24   |
| Oil and grease.....     | .16  | .08   |
| Fecal coliform.....     | Maximum at any time 400 mpn/100 ml.        |   |
| pH.....                 | Within the range 6.0 to 9.0.               |   |

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this

section and attributable to the processing (defleshing, washing and curing) of hides derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by §432.32(a):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub> .....  | 0.04                                       | 0.02  |
| TSS.....                | .08  | .04   |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub> .....  | 0.04                                       | 0.02  |
| TSS.....                | .08  | .04   |

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the processing of blood derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by §432.32(a):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub> .....  | 0.04                                       | 0.02  |
| TSS.....                | .08  | .04   |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub> .....  | 0.04                                       | 0.02  |
| TSS.....                | .08  | .04   |

(d) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the wet or low temperature rendering of material derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by §432.32(a):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub> .....  | 0.06                                       | 0.03  |
| TSS.....                | .12  | .06   |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub> .....  | 0.06                                       | 0.03  |
| TSS.....                | .12  | .06   |

(e) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the dry rendering of material derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by §432.32(a):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub> .....  | 0.02                                       | 0.01  |
| TSS.....                | .04  | .02   |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub> .....  | 0.02                                       | 0.01  |
| TSS.....                | .04  | .02   |

§432.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to on-site slaughter or subsequent meat, meat product or by-product processing of carcasses of animals slaughtered on-site, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub> .....  | 0.08                                       | 0.04  |
| TSS.....                | .12  | .06   |
| pH.....                 | Within the range 6.0 to 9.0.               |   |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub> .....  | 0.08                                       | 0.04  |
| TSS.....                | .12  | .06   |
|                         | Milligrams per liter—effluent              |   |
| Ammonia.....            | 8.0  | 4.0   |
| Oil and grease.....     | 10.0                                       |   |
| Fecal coliform.....     | Maximum at any time 400 mpn/100 ml.        |   |
| pH.....                 | Within the range 6.0 to 9.0.               |   |

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the processing of blood derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by §432.33(a):

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| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub> .....  | 0.014                                      | 0.007   |
| TSS.....                | .026                                       | .013  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub> .....  | 0.014                                      | 0.007   |
| TSS.....                | .026                                       | .013  |

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the wet or low temperature rendering of material derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.33(a):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub> .....  | 0.02                                       | 0.01  |
| TSS.....                | .04  | .02   |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub> .....  | 0.02                                       | 0.01  |
| TSS.....                | .04  | .02   |

(d) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the dry rendering of material derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.33(a):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub> .....  | 0.006                                      | 0.003   |
| TSS.....                | .014                                       | .007  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub> .....  | 0.006                                      | 0.003   |
| TSS.....                | .014                                       | .007  |

## § 432.34 [Reserved]

## § 432.35 Standards of performance for new sources.

(a) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to on-site slaughter or subsequent

meat, meat product or by product processing of carcasses of animals slaughtered on-site which may be discharged by a new source subject to the provisions of this subpart: The limitations shall be as specified in § 432.32(a), with the exception that in addition to the pollutants or pollutant properties controlled by that subsection, discharges of ammonia shall not exceed the limitations set forth below:

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia.....            | 0.48                                       | 0.24  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do.....                 | 0.48                                       | 0.24  |

(b) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the processing of blood derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a new source subject to the provisions of this subpart, in addition to the discharge allowed by §§ 432.35(a) and 432.32(c):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia.....            | 0.06                                       | 0.03  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do.....                 | 0.06                                       | 0.03  |

(c) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the wet or low temperature rendering of material derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a new source subject to the provisions of this subpart, in addition to the discharge allowed by §§ 432.35(a) and 432.32(a).

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia.....            | 0.10                                       | 0.05  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do.....                 | 0.10                                       | 0.05  |

(d) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the dry rendering of material derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a new source subject to the provisions of this subpart, in addition to the discharge allowed by §§ 432.35(a) and 432.32(e):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia.....            | 0.04                                       | 0.02  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do.....                 | 0.04                                       | 0.02  |

## § 432.36 Pretreatment standards for new sources.

The pretreatment standards for incompatible pollutants under section 307 (c) of the Act for a source within the simple slaughterhouse subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except for § 128.133. Subject to the provisions of 40 CFR Part 128, process waste waters from a new source subject to the provisions of this subpart may be introduced into a publicly owned treatment works.

## Subpart D—High-Processing Packinghouse Subcategory

## § 432.40 Applicability; description of the high-processing packinghouse subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of red meat carcasses, in whole or part, by high-processing packinghouses.

## § 432.41 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "packinghouse" shall mean a plant that both slaughters animals and subsequently processes carcasses into cured, smoked, canned or other prepared meat products.

(c) The term "high-processing packinghouse" shall mean a packinghouse which processes both animals slaughtered at the site and additional carcasses from outside sources.

(d) The term "LWK" (live weight killed) shall mean the total weight of the total number of animals slaughtered during the time to which the effluent limitations apply; i.e., during any one day or any period of thirty consecutive days.

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(e) The term "ELWK" (equipment live weight killed) shall mean the total weight of the total number of animals slaughtered at locations other than the slaughterhouse or packinghouse, which animals provide hides, blood, viscera or renderable materials for processing at that slaughterhouse, in addition to those derived from animals slaughtered on-site.

(f) The term "oil and grease" shall mean those components of process waste water amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, EPA, Analytical Quality Control Laboratory, page 217.

§ 432.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to on-site slaughter or subsequent meat, meat product or byproduct processing of carcasses

of animals slaughtered on-site, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic | Effluent limitations                      |   |
|-------------------------|---|---|
|                         | Maximum for any 1 day                     | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg LWK) |   |
| BOD <sub>5</sub> +      | 0.48                                      | 0.24  |
| TSS+                    | .62                                       | .31   |
| Oil and grease          | .26                                       | .13   |
| Fecal coliform          | Maximum at any time 400 mpn/100 ml.       |   |
| pH                      | Within the range 6.0 to 9.0               |   |
|                         | English units (pounds per 1,000 lb ELWK)  |   |
| BOD <sub>5</sub> +      | 0.48                                      | 0.24  |
| TSS+                    | .62                                       | .31   |
| Oil and grease          | .26                                       | .13   |
| Fecal coliform          | Maximum at any time 400 mpn/100 ml.       |   |
| pH                      | Within the range 6.0 to 9.0               |   |

+ The values for BOD<sub>5</sub> and suspended solids are for average plants, i.e., plants with a ratio of average weight of processed meat products to average LWK of 0.55. Adjustments can be made for high-processing packinghouses at other ratios according to the following equations:

$$\text{kg BOD}_5/1000 \text{ kg LWK} = 0.21 + 0.23 (v - 0.4)$$

$$\text{kg SS}/1000 \text{ kg LWK} = 0.28 + 0.30 (v - 0.4)$$

where  $v$  = kg processed meat products/kg LWK.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the processing (defleshing, washing and curing) of hides derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.42(a):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub>        | 0.04                                       | 0.02  |
| TSS                     | .08  | .04   |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub>        | 0.04                                       | 0.02  |
| TSS                     | .08  | .04   |

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the processing of blood derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.42(a):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub>        | 0.04                                       | 0.02  |
| TSS                     | .08  | .04   |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub>        | 0.04                                       | 0.02  |
| TSS                     | .08  | .04   |

(d) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the wet or low temperature rendering of material derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.42(a):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub>        | 0.06                                       | 0.03  |
| TSS                     | .12  | .06   |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub>        | 0.06                                       | 0.03  |
| TSS                     | .12  | .06   |

(e) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the dry rendering of material derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.42(a):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub>        | 0.02                                       | 0.01  |
| TSS                     | .04  | .02   |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub>        | 0.02                                       | 0.01  |
| TSS                     | .04  | .02   |

§ 432.43 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

(a) The following limitations establish the quantity or quality of pollutants or

pollutant properties, controlled by this section and attributable to on-site slaughter or subsequent meat, meat product or by-product processing of carcasses of animals slaughtered on site, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub> +      | 0.16                                       | 0.06  |
| TSS+                    | .20  | .10   |
| pH                      | Within the range 6.0 to 9.0.               |   |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub> +      | 0.16                                       | 0.06  |
| TSS+                    | .20  | .10   |
|                         | Milligrams per liter—effluent              |   |
| Ammonia                 | 8.0  | 4.0   |
| Oil and grease          | 10.0                                       |   |
| Fecal coliform          | Maximum at any time 400 mpn/100 ml.        |   |

+ The values for BOD<sub>5</sub> and suspended solids are for average plants, i.e., plants with a ratio of average weight of processed meat products to average ELWK of 0.55. Adjustments can be made for high-processing packinghouses at other ratios according to the following equations:

$$\text{kg BOD}_5/1000 \text{ kg ELWK} = 0.07 + 0.08(v - 0.4)$$

$$\text{kg SS}/1000 \text{ kg ELWK} = 0.09 + 0.10(v - 0.4)$$

where,  $v = \text{kg processed meat products/kg ELWK}$

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the processing of blood derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.43(a):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub>        | 0.014                                      | 0.007   |
| TSS                     | .026                                       | .013  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub>        | 0.014                                      | 0.007   |
| TSS                     | .026                                       | .013  |

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the wet or low temperature rendering of material derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.43(a):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub>        | 0.02                                       | 0.01  |
| TSS                     | .04  | .02   |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub>        | 0.02                                       | 0.01  |
| TSS                     | .04  | .02   |

(d) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the dry rendering of material derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by § 432.43(d):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| BOD <sub>5</sub>        | 0.006                                      | 0.003   |
| TSS                     | .011                                       | .007  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| BOD <sub>5</sub>        | 0.006                                      | 0.003   |
| TSS                     | .011                                       | .007  |

#### § 432.44 [Reserved]

#### § 432.45 Standards of performance for new sources.

(a) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to on-site slaughter or subsequent meat, meat product or by product processing of carcasses of animals slaughtered on-site which may be discharged by a new source subject to the provisions of this subpart: The limitations shall be as specified in § 432.42(a), with the exception that in addition to the pollutants or pollutant properties controlled by that subsection, discharges of ammonia shall not exceed the limitations set forth below:

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia                 | 0.80                                       | 0.40  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do                      | 0.80                                       | 0.40  |

(b) The following standards of performance establish the quantity or qual-

ity of pollutants or pollutant properties, controlled by this section and attributable to the processing of blood derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a new source subject to the provisions of this subpart, in addition to the discharge allowed by §§ 432.45(a) and 432.42(c):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia                 | 0.06                                       | 0.03  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do                      | 0.06                                       | 0.03  |

(c) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the wet or low temperature rendering of material derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a new source subject to the provisions of this subpart, in addition to the discharge allowed by §§ 432.45(a) and 432.42(d):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 10 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia                 | 0.10                                       | 0.05  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do                      | 0.10                                       | 0.05  |

(d) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the dry rendering of material derived from animals slaughtered at locations other than the packinghouse, which may be discharged by a new source subject to the provisions of this subpart, in addition to the discharge allowed by §§ 432.45(a) and 432.42(e):

| Effluent characteristic | Effluent limitations                       |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                      | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg ELWK) |   |
| Ammonia                 | 0.04                                       | 0.02  |
|                         | English units (pounds per 1,000 lb ELWK)   |   |
| Do                      | 0.04                                       | 0.02  |

## RULES AND REGULATIONS

**§ 432.46 Pretreatment standards for new sources.**

The pretreatment standards for incompatible pollutants under section 307(c) of the Act for a source within the simple slaughterhouse subcategory,

which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except for

§ 128.133. Subject to the provisions of 40 CFR Part 128, process waste waters from a new source subject to the provisions of this subpart may be introduced into a publicly owned treatment works.

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**PART II**



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## **ENVIRONMENTAL PROTECTION AGENCY**

■

### **NONFERROUS METALS MANUFACTURING POINT SOURCE CATEGORY**

**Effluent Guidelines and Standards and  
Proposed Limitations**

**Title 40—Protection of the Environment**  
**CHAPTER I—ENVIRONMENTAL**  
**PROTECTION AGENCY**

**SUBCHAPTER N—EFFLUENT GUIDELINES AND STANDARDS**

**PART 421—NONFERROUS METALS MANUFACTURING POINT SOURCE CATEGORY**

**Bauxite Refining, Primary Aluminum Smelting, and Secondary Aluminum Smelting Subcategories**

On November 30, 1973, notice was published in the *FEDERAL REGISTER* (38 FR 33170), that the Environmental Protection Agency (EPA or Agency) was proposing effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the bauxite refining subcategory, the primary aluminum smelting subcategory, and the secondary aluminum smelting subcategory of the nonferrous metals manufacturing category of point sources.

The purpose of this notice is to establish final effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources in the nonferrous metals manufacturing category of point sources, by amending 40 CFR Ch. I, Subchapter N, to add a new Part 421. This final rulemaking is promulgated pursuant to sections 301, 304(b) and (c), 306(b) and (c) and 307(c) of the Federal Water Pollution Control Act, as amended, (the Act); 33 U.S.C. 1251, 1311, 1314(b) and (c), 1316(b) and (c) and 1317(c); 86 Stat. 816 et seq.; Pub. L. 92-500. Regulations regarding cooling water intake structures for all categories of point sources under section 316(b) of the Act will be promulgated in 40 CFR Part 402.

In addition, the EPA is simultaneously proposing a separate provision which appears in the proposed rules section at 39 FR 12829 of this issue, stating the application of the limitations and standards set forth below to users of publicly owned treatment works which are subject to pretreatment standards under section 307(b) of the Act. The basis of that proposed regulation is set forth in the associated notice of proposed rulemaking.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for the bauxite refining subcategory, the primary aluminum smelting subcategory, and the secondary aluminum smelting subcategory. In addition, the regulations as proposed were supported by four other documents:

(1) The document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Bauxite Refining Subcategory of the Aluminum Segment of the Nonferrous Metals Manufacturing Point Source Category" (October 1973), (2) the document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the

Primary Aluminum Smelting Subcategory of the Aluminum Segment of the Nonferrous Metals Manufacturing Point Source Category" (October 1973), (3) the document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Secondary Aluminum Smelting Subcategory of the Aluminum Segment of the Nonferrous Metals Manufacturing Point Source Category" (October 1973), and (4) the document entitled "Economic Analysis of Proposed Effluent Guidelines, The Nonferrous Metals Industry (Aluminum)" (September 1973). All of these documents were made available to the public and circulated to interested persons at approximately the time of publication of the notice of proposed rulemaking.

Interested persons were invited to participate in the rulemaking by submitting written comments within 30 days from the date of publication. Prior public participation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties were described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response there-to follows.

(a) *Summary of major comments.* The following responded to the request for written comments which was contained in the preamble to the proposed regulation: Consolidated Aluminum Corporation, Reynolds Aluminum, Ormet Corporation, Aluminum Company of America, Kaiser Aluminum and Chemicals Corporation, American Metals Climax, Inc., U.S. Department of Commerce, ESOWAC, U.S. Department of the Interior, County Sanitation Districts of Los Angeles County, Aluminum Recycling Association, Colorado Department of Public Health, U.S. Water Resources Council, and U.S. Department of Health, Education and Welfare. Each of the comments received was carefully reviewed and analyzed. The following is a summary of the significant comments and the Agency's response to these comments:

(1) A comment was submitted by Kaiser Aluminum Company raising a question concerning the relationship of the proposed guidelines for bauxite refining to the provisions of a consent decree between EPA and the Company dated October 13, 1972. EPA met with representatives of the Company and reviewed the provisions of the consent decree, as well as additional technical and economic information concerning the treatment for the Kaiser plants.

EPA is generally in agreement that the total impoundment technology that is "best practicable" for the bauxite refining subcategory is not consistent with the sand bed filtration system being installed by the Company pursuant to the consent decree. Technical information indicates that zero discharge of all process waste water pollutants may not be achievable with the sand bed filtration system. How-

ever, the possibility of some discharge of recycled liquids and associated wastes was contemplated in the consent decree, which includes a complete procedure for submission and approval of effluent limits for these waste streams.

Consent decrees and permits negotiated in good faith prior to the passage of the Act and issuance of effluent guidelines continue in effect without regard to the limitations in the guidelines, except where exceptional circumstances have been presented to warrant amendment of a decree or permit. It is the opinion of EPA that no exceptional circumstances have been presented to warrant amendment of this decree through the effluent guidelines process. It has been determined therefore that the guidelines and standards will not apply to the Kaiser plants for the discharges covered by the consent decree.

Since the provisions of the consent decree will govern the establishment of limitations of the effluent discharges from these two plants, it is the determination of the Agency that there is no need to modify the industry-wide guidelines to include effluent limitations data regarding these two plants.

(2) One commenter suggested that the allowable discharges resulting from excess rainfall as provided under §§ 421.12, 421.13 and 421.14 of the proposed guidelines for the bauxite refining subcategory should be limited solely to supernatant water so that the discharge of suspended red mud and other pollutants will be minimal.

The three sections presented in the proposed regulations for this subcategory should have stated that the allowable discharge would be the overflow from the impoundment facility. The proposed regulations will be changed to read "... there may be discharged from the overflow of a process waste water impoundment . . . ."

(3) Two commenters considered the storm water discharge provisions of §§ 421.12, 421.13 and 421.14 of the proposed regulations for the bauxite refining subcategory to be unreasonable and not amenable to implementation and management.

The three sections presented in the proposed regulations were not intended to allow the discharge of excess rainfall at the end of a calendar month. Discharge can occur from the impoundment area at any time during the calendar month, but records of process waste water effluent volumes, discharge volumes, and net precipitation data kept during the calendar month must justify the total excess rain water discharge at the end of that month. Thus, the management and implementation of such an allowable discharge program is not unreasonable.

(4) One commenter stated that storm water runoff should not be considered as a process waste water source, as listed in the proposed effluent guidelines for the bauxite refining subcategory.

As defined by § 421.11(b), as proposed, "process waste water" means any water which, during the refining process, comes

into direct contact with any raw material, intermediate by-product, or product used in or resulting from the manufacture of alumina from bauxite. That segment of storm water runoff which cannot be segregated from process waste waters becomes, by combination therewith, a process waste water. Obviously, the remaining storm water runoff, because it does not meet the definition of § 421.11(b), is not considered as a process waste water source. Maximization of storm water runoff segregation will minimize the total process waste water volume.

(5) A comment was received that the entire concept of evaporators to meet the proposed effluent limitations for the bauxite refining subcategory should be deleted. Evaporators are not cost effective, consume precious energy, and produce solid wastes.

Evaporators are currently being used by several domestic bauxite refineries for maintaining acceptable salt levels in spent liquor returning to the digesters from the precipitators. The use of salting-out evaporators is specifically for process purposes. The guidelines as proposed could require evaporators to maintain salt levels low enough to permit reuse of process water by evaporation of purge streams.

Chloride salts are formed from chloride values introduced at the chlor-alkali facility producing the caustic; sulfate salts are formed from sulfur added to bauxite for zinc precipitation. Methods to minimize chloride introduction and other methods for zinc precipitation should be available shortly. These changes should preclude or minimize the use of salting-out evaporators for pollution control.

(6) One commenter felt that the effluent limitations for the bauxite refining subcategory should allow the discharge of barometric condenser water after reducing the pH to 9, if necessary.

On a volumetric basis, barometric condenser water is the largest process waste water source at a bauxite refinery. River or pond water at a neutral pH is introduced into the condensers. If either no demisting devices are used or they are used but are not properly operated, caustic values will be entrained into the condenser water. These entrained caustic values alter both the pH and the alkalinity content of the receiving water. Reducing the pH of this water back to within the 6.0 to 9.0 range will precipitate high values of total suspended solids which itself is a process waste water pollutant.

(7) One commenter suggested that cyanide not be selected as a significant pollutant for the primary aluminum smelting subcategory.

Cyanide was found in the effluents from some primary aluminum smelters in low concentrations. Treatment technology for effective cyanide removal is currently available at reasonable cost. However, further data have shown that typical concentrations of cyanide found in these same effluents are too small in magnitude to be significantly reduced by current

technology. Therefore, cyanide will be deleted from the list of significant pollutants for this subcategory.

(8) Two commenters stated that dumping or land filling sludges produced as a result of some liquid effluent treatment processes may not be an adequate solution if these sludges contain soluble solid fluorides, such as  $\text{CaF}_2$  or cryolite.

The removal of metals from waste water by chemical precipitation methods produces a sludge which requires adequate precautions to prevent contamination of subsurface waters. It is expected that the guidelines will focus attention on the problem of solids disposal so that satisfactory solutions will be found. Chemical precipitation with solids separation is accepted as the best practicable control technology for this industry. Soluble metal salts produced by concentration or recovery techniques such as evaporation pose a greater environmental hazard than the metallic hydroxides resulting from chemical treatment. An environmentally acceptable solution to this problem, which is not peculiar to this industry, is expected prior to the deadline for application of the best available technology economically achievable in 1983.

(9) One responder to the FEDERAL REGISTER request for comments felt that the proposed single day maximum effluent limitations guidelines for the primary aluminum subcategory were improperly developed. The commenter argued that limits are arbitrary and do not allow for process upsets, runoff effects, and operational flexibility. It was also contended that the limitations are not supported by field data at even exemplary plants.

Data from nine plants indicate that the ratio of maximum discharge to average discharge for fluoride, suspended solids, and oil and grease is less than 2. The effluent limitations conservatively establish the ratio of single day maximum to 30-day maximum at 2. EPA believes this ratio allows flexibility to account for conditions such as process upsets. Runoff is not considered a process waste water.

(10) Two commenters felt that the proposed new source performance standards for the primary aluminum smelting subcategory do not take into account either the need for secondary scrubbing to meet stringent air pollution standards or the climatic conditions existing in certain localities which would be a limiting factor to total impoundment.

New technologies which are being used or are planned for use at new primary aluminum smelters include dry primary and secondary scrubbing; air-cooled, solid state rectifiers; and nonwater molten metal degassing. Low fluoride concentrations in cell rooms can be maintained by the installation of highly efficient hooding, by operating with computer head-off and crust-breaking techniques, and by employing well-designed damper and draft systems. These new technologies have indicated, by means of current atmospheric emission test data, that the application of secondary scrubbing will not be necessary for new sources to meet stringent air pollution regula-

tions. Also, the new technologies will preclude the use of water polluting processes and techniques, and therefore, because of limited water use, total impoundment will not be necessary.

(11) One comment received was that the proposed new source performance standards for the primary aluminum smelting subcategory provide tighter restrictions on fluorides and suspended solids than are required by the 1983 proposed best available technology economically achievable guidelines. It was argued that the new source performance standards should be the same as the proposed 1983 guidelines.

As stated on page 134 of the Development Document for the primary aluminum smelting subcategory, the new source performance standards are lower for fluoride and suspended solids than those applicable to existing sources by 1983 because of the availability to new sources of dry scrubbing for potline air. Basically, a new source has complete freedom to select unit processes which minimize the use of water.

(12) Another commenter stated that there is no current trend toward dry scrubbing at existing primary aluminum facilities.

The opposite of this statement is true. Numerous primary aluminum smelters, of all three types of cells, have reported the use or probable use of dry scrubbing systems.

(13) One commenter felt that the use of air cooling or totally consumptive cooling of cast primary aluminum would not be feasible when direct chill or horizontal direct chill casting is practiced. Zero discharge of process pollutants from the cast house would be an unrealistic goal.

Zero discharge from the cast house is not required by the guidelines. Some plants may choose to pursue zero discharge of cast house water as the means to achieve no discharge of process waste water pollutants. The guidelines do not require process modifications that would be technically impractical.

(14) One commenter requested clarification as to the applicability of the primary aluminum smelting subcategory effluent limitations. This commenter felt that additional discharges of process pollutants should be allowed for such operations as cryolite recovery from used potlining, hydrofluoric acid production, and the production of on-site power, when such operations are conducted at the primary aluminum smelter solely for the purpose of producing an end product to be used in the manufacture of aluminum at the same plant. Also, since some smelters cast other than primary metal produced directly from alumina, an additional pollution allowance was suggested, based upon actual casting rate.

The effluent limitations apply to process waste water streams as defined in the proposed regulations. Ancillary operations not defined in § 421.20 are not covered by these guidelines.

(15) A comment was received stating that the effluent limitations for the secondary aluminum smelting subcategory

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should allow a discharge of a bleed stream from the metal cooling water recirculation system. The commenter supported his position by referring to a statement made in the Development Document for this subcategory.

Alternatives, other than the discharge of a salt bleed stream, are available. If a bleed stream exists, this effluent can be used to flash cool hot ingots. During flashing, the contained salts will be deposited as a very thin layer on the ingot surface and will not alter the quality of this product. This procedure is practiced by several existing facilities within this subcategory. Another alternative is air cooling. Evaporation is a third, and least likely, alternative. The statement made in the Development Document for this subcategory will be corrected.

(16) One responding party suggested that COD be deleted from the proposed list of significant pollutants for the secondary aluminum smelting subcategory.

Sufficient COD to require limitation was found in the effluents from chlorine fume scrubbing operations. Data indicate that treatment reduces COD to the levels proposed in the regulations.

(17) Several commenters questioned the designation of the Derham, Alcoa, and Teller processes as "currently available" for the secondary aluminum smelting subcategory.

All three of these processes are demonstrated to varying degrees. Any one of these systems could, if necessary, be employed by the industry to meet the effluent limitations based on the best practicable control technology currently available.

(18) One commenter felt that evaporation of the bleeds from recirculation systems to achieve compliance with the "no discharge" secondary aluminum smelting effluent guideline is neither a cost nor an energy effective solution.

Evaporation of the bleeds from recirculation systems to achieve no discharge of process waste water pollutants is not required. It is one method to achieve the effluent limitations. The guidelines are developed to allow maximum flexibility to the smelter. Impoundment also may be feasible for some smelters.

(19) One secondary aluminum smelting subcategory comment was received that stated that the variability of aluminum scrap used, type of smelter operations (differing furnaces), products produced (from specific alloys to nonalloys), and plant sizes make the use of discharge limits based on the waste of magnesium produced in wet scrubbing operations for chlorine demagging impossible to enforce.

Section 308 of the Act authorizes the Administrator to require dischargers to maintain records for the purpose of determining compliance with the effluent limitations. Data collected during the study to develop the guidelines indicate that information on recovered magnesium is readily available and routinely recorded by most plants in this subcategory.

(20) Two commenters stated that the cost figures and the economic impact conclusions reported in the proposed rules for the secondary aluminum smelting subcategory cannot be confirmed.

The cost and economic impact conclusions were based on the best data available at the time of this study. Additional data were solicited from the industry in the preamble to the proposed regulations.

(21) Two commenters felt that the intention of the proposed guidelines to prohibit the discharge of only specified pollutants without regard to the discharge of other unspecified pollutants is not clear.

The pollutants subject to effluent limitations are those contained in the process waste waters which were identified as "significant." The significant pollutants and the corresponding effluent limitations appear in the appropriate sections of the regulation. If a pollutant does not appear with a corresponding effluent limitation, the pollutant is not subject to control by the regulations.

(22) Several commenters stated that the data establishing effluent limitations are in some cases on a gross basis and in others on a net basis.

The resultant limitations are presented on an absolute basis. The use of such limitations is appropriate since the concentration of a pollutant remaining after a given treatment is relatively independent of the concentration in the waste or the source of the pollutant.

(b) *Revision of the proposed regulation prior to promulgation.* As a result of public comments and continuing review and evaluation of the proposed regulation by the EPA, the following significant changes have been made in the regulation:

(1) Paragraph (b) of §§ 421.12, 421.13, and 421.14 has been modified by adding "the overflow of" to "there may be discharged from such impoundment." The modified phrase "there may be discharged from the overflow of a process waste water impoundment" now stipulates that the allowable discharge resulting from excess rainfall is limited solely to supernatant water.

(2) Cyanide as well as oil and grease have been deleted from the proposed list of significant pollutants for the primary aluminum smelting subcategory. Oil and grease has been deleted from the proposed list of significant pollutants for the secondary aluminum smelting subcategory. These deletions were made since data have shown that typical concentrations of both cyanide and oil and grease found in the effluents of these subcategories are too small in magnitude to be significantly reduced by current technology.

(3) Section 304(b)(1)(B) of the Act provides for "guidelines" to implement the uniform national standards of section 301(b)(1)(A). Thus Congress recognized that some flexibility was necessary in order to take into account the complexity of the industrial world with

respect to the practicability of pollution control technology. In conformity with the Congressional intent and in recognition of the possible failure of these regulations to account for all factors bearing on the practicability of control technology, it was concluded that some provision was needed to authorize flexibility in the strict application of the limitations contained in the regulation where required by special circumstances applicable to individual dischargers. Accordingly, a provision allowing flexibility in the application of the limitations representing best practicable control technology currently available has been added to each subpart, to account for special circumstances that may not have been adequately accounted for when these regulations were developed.

(c) *Economic impact.* The effluent limitation guidelines now being promulgated are expected to have only minimal effects on the aluminum industry. In the primary sector, no price increases are expected and no plant closings or employment impacts are anticipated in 1977 or 1983. Plant closings in the secondary sector are expected only in 1983 and only in the case of wet dross milling operations. These plants make up about 1 percent of total aluminum production capacity and represent about 160 employees. In the remaining secondary operations no closings are anticipated and price increases are expected to be less than 1 percent.

For seven of the industry's nine bauxite refining plants, the majority of the costs for meeting the 1977 guidelines has already been incurred. Any additional costs are expected to range from zero to less than 1.6 percent of the sale value of alumina (0.2 percent of the sale value of aluminum). For the remaining two plants, both technical and economic analysis have indicated that a requirement of no discharge of process waste water pollutants may not be practicable. At these two plants, the 1977 requirements of no discharge of process waste water pollutants is to be applied to only those process waste water streams not covered by a consent decree, which was agreed upon for these two plants in October of 1972. The consent decree contemplates the possible need for a discharge and includes a complete procedure for establishing effluent limitations for these plants.

The 1983 requirement for these plants is still no discharge of process waste water pollutants; however, the additional time is expected to be sufficient to allow the technical and economic problems associated with no discharge to be solved.

(d) *Cost-benefit analysis.* The detrimental effects of the constituents of waste waters now discharged by point sources within the aluminum segment of the nonferrous metals manufacturing point source category are discussed in section VI of each respective report entitled "Development Document for Effluent Limitations Guidelines for the Bauxite Refining Subcategory of the Alumi-

num Segment of the Nonferrous Metals Manufacturing Point Source Category," "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Primary Aluminum Smelting Subcategory of the Aluminum Segment of the Nonferrous Metals Manufacturing Point Source Category," and "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Secondary Aluminum Smelting Subcategory of the Aluminum Segment of the Nonferrous Metals Manufacturing Point Source Category." It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's waterways. Nevertheless, as indicated in section VI, the pollutants discharged have substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations guidelines includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in section VIII and in the supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines, the NONFERROUS METALS INDUSTRY (Aluminum)" (September 1973). Implementing the effluent limitations guidelines will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed plants in the nonferrous metals industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms, represent a relatively small percentage of the total capital investment in the industry.

(e) *Solid waste control.* Solid waste control must be considered. The waterborne wastes from the nonferrous metals industry may contain a considerable volume of metals in various forms as a part of the suspended solids pollutant. Best practicable control technology and best available control technology as they are known today, require disposal of the pollutants removed from waste waters in this industry in the form of solid wastes and liquid concentrates. In some cases these are nonhazardous substances requiring only minimal custodial care. However, some constituents may be hazardous and may require special consideration. In order to ensure long term protection of the environment from these hazardous or harmful constituents, special consideration of disposal sites must be made. All landfill sites where such hazardous wastes are disposed should be selected so as to prevent horizontal and vertical migration of these contaminants to ground or surface waters. In cases where geologic conditions

may not reasonably ensure this, adequate precautions (e.g., impervious liners) should be taken to ensure long term protection to the environment from hazardous materials. Where appropriate the location of solid hazardous materials disposal sites should be permanently recorded in the appropriate office of the legal jurisdiction in which the site is located.

(f) Publication of information on processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants.

In conformance with the requirements of section 304(c) of the Act, three manuals entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Bauxite Refining Subcategory of the Aluminum Segment of the Nonferrous Metals Manufacturing Point Source Category," "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Primary Aluminum Smelting Subcategory of the Aluminum Segment of the Nonferrous Metals Manufacturing Point Source Category," and "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Secondary Aluminum Smelting Subcategory of the Aluminum Segment of the Nonferrous Metals Manufacturing Point Source Category," are being published and will be available in approximately ten weeks.

(g) *Final rulemaking.* In consideration of the foregoing, 40 CFR Ch. I, Subchapter N is hereby amended by adding a new Part 421, Nonferrous Metals Manufacturing Point Source Category, to read as set forth below. This final regulation is promulgated as set forth below and shall be effective June 3, 1974.

Dated: March 26, 1974.

JOHN QUARLES,  
Acting Administrator.

**Subpart A—Bauxite Refining Subcategory**

- Sec. 421.10 Applicability; description of the bauxite refining subcategory.  
421.11 Specialized definitions.  
421.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
421.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.  
421.14 [Reserved].  
421.15 Standards of performance for new sources.  
421.16 Pretreatment standards for new sources.

**Subpart B—Primary Aluminum Smelting Subcategory**

- 421.20 Applicability; description of the primary aluminum smelting subcategory.  
421.21 Specialized definitions.  
421.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practical control technology currently available.

- Sec. 421.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.  
421.24 [Reserved].  
421.25 Standards of performance for new sources.  
421.26 Pretreatment standards for new sources.

**Subpart C—Secondary Aluminum Smelting Subcategory**

- 421.30 Applicability; description of the secondary aluminum smelting subcategory.  
421.31 Specialized definitions.  
421.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
421.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.  
421.34 [Reserved].  
421.35 Standards of performance for new sources.  
421.36 Pretreatment standards for new sources.

AUTHORITY. Secs. 301, 304(b) and (c), 306 (b) and (c) add 307(c) of the Federal Water Pollution Control Act as amended, (the Act); 33 U.S.C. 1251, 1311, 1314(b) and (c), 1316 (b) and (c) and 1317(c); 86 Stat. 816 et seq.; Pub. L. 92-500.

**Subpart A—Bauxite Refining Subcategory**

§ 421.10 Applicability; description of the bauxite refining subcategory.

The provisions of this subpart are applicable to discharges resulting from the refining of bauxite to alumina by the Bayer process or by the combination process.

§ 421.11 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "bauxite" shall mean ore containing alumina monohydrate or alumina trihydrate which serves as the principal raw material for the production of alumina by the Bayer process or by the combination process.

(c) The term "product" shall mean alumina.

§ 421.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been

available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) Subject to the provisions of paragraph (b) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

(b) During any calendar month there may be discharged from the overflow of a process waste water impoundment either a volume of process waste water equal to the difference between the precipitation for that month that falls within the impoundment and the evaporation within the impoundment for that month, or, if greater, a volume of process waste water equal to the difference between the mean precipitation for that month that falls within the impoundment and the mean evaporation for that month as established by the National Climatic Center, National Oceanic and Atmospheric Administration, for the area in which such impoundment is located (or as otherwise determined if no monthly data have been established by the National Climatic Center).

**§ 421.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

(a) Subject to the provisions of paragraph (b) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the

best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

(b) During any calendar month there may be discharged from the overflow of a process waste water impoundment either a volume of process waste water equal to the difference between the precipitation for that month that falls within the impoundment and the evaporation within the impoundment for that month, or, if greater, a volume of process waste water equal to the difference between the mean precipitation for that month that falls within the impoundment and the mean evaporation for that month as established by the National Climatic Center, National Oceanic and Atmospheric Administration, for the area in which such impoundment is located (or as otherwise determined if no monthly data have been established by the National Climatic Center).

**§ 421.14 [Reserved]**

**§ 421.15 Standards of performance for new sources.**

(a) Subject to the provisions of paragraph (b) of this section, the following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

(b) During any calendar month there may be discharged from the overflow of a process waste water impoundment either a volume of process waste water equal to the difference between the precipitation for that month that falls within the impoundment and the evaporation within the impoundment for that month, or, if greater, a volume of process waste water equal to the difference between the mean precipitation for that month that falls within the impoundment and the mean evaporation for that month as established by the National Climatic Center, National Oceanic and Atmospheric Administration, for the area in which such impoundment is located (or as otherwise determined if no monthly data have been established by the National Climatic Center).

**§ 421.16 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the bauxite refining subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131 of this chapter the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in § 421.15: *Provided*, That,

if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

#### **Subpart B—Primary Aluminum Smelting Subcategory**

**§ 421.20 Applicability; description of the primary aluminum smelting subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of aluminum from alumina by the Hall-Heroult process.

**§ 421.21 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter, shall apply to this subpart.

(b) The term "product" shall mean hot aluminum metal.

**§ 421.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations,

specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

| Effluent characteristic | Effluent limitations                             |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                            | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg of product) |   |
| Fluoride.....           | 2.0  | 1.0   |
| TSS.....                | 3.0  | 1.5   |
| pH.....                 | Within the range 6.0 to 9.0.                     |   |
|                         | English units (pounds per 1,000 lb of product)   |   |
| Fluoride.....           | 2.0  | 1.0   |
| TSS.....                | 3.0  | 1.5   |
| pH.....                 | Within the range 6.0 to 9.0.                     |   |

§ 421.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

| Effluent characteristic | Effluent limitations                             |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                            | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg of product) |   |
| Fluoride.....           | 0.1  | 0.05  |
| TSS.....                | .2   | .1  |
| pH.....                 | Within the range 6.0 to 9.0.                     |   |
|                         | English units (pounds per 1,000 lb of product)   |   |
| Fluoride.....           | 0.1  | 0.05  |
| TSS.....                | .2   | .1  |
| pH.....                 | Within the range 6.0 to 9.0.                     |   |

§ 421.24 [Reserved]

§ 421.25 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart:

| Effluent characteristic | Effluent limitations                             |   |
|-------------------------|--|---|
|                         | Maximum for any 1 day                            | Average of daily values for 30 consecutive days shall not exceed— |
|                         | Metric units (kilograms per 1,000 kg of product) |   |
| Fluoride.....           | 0.05   | 0.025   |
| TSS.....                | .1   | .05   |
| pH.....                 | Within the range 6.0 to 9.0.                     |   |
|                         | English units (pounds per 1,000 lb of product)   |   |
| Fluoride.....           | 0.05   | 0.025   |
| TSS.....                | .1   | .05   |
| pH.....                 | Within the range 6.0 to 9.0.                     |   |

§ 421.26 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the primary aluminum smelting subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128, of this chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131 of this chapter, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in § 421.25: *Provided*, That if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

#### Subpart C—Secondary Aluminum Smelting Subcategory

§ 421.30 Applicability; description of the secondary aluminum smelting subcategory.

The provisions of this subpart are applicable to discharges resulting from the recovery, processing, and remelting of aluminum scrap to produce metallic aluminum alloys.

§ 421.31 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.  
(b) The term "product" shall mean hot aluminum recovered.

§ 421.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all

information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, which may be discharged by a point source subject to the provisions of this subpart and which uses water for metal cooling, after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart and which uses aluminum fluoride in its magnesium removal process ("demagging process"), after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart and which uses chlorine in its magnesium removal process, after ap-

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plication of the best practicable control technology currently available:

| Effluent characteristic | Effluent limitations  |  |
|-------------------------|---|--|
|                         | Average of daily values for 30 consecutive days shall not exceed— |  |
|                         | Metric units (kilograms per 1,000 kg magnesium removed)           |  |
| TSS.....                | 175   |  |
| COD.....                | 6.5   |  |
| pH.....                 | Within the range of 7.5 to 9.0.                                   |  |
|                         | English units (pounds per 1,000 lb magnesium removed)             |  |
| TSS.....                | 175   |  |
| COD.....                | 6.5   |  |
| pH.....                 | Within the range of 7.5 to 9.0.                                   |  |

(d) The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart and which processes residues by wet methods, after application of the best practical control technology currently available.

| Effluent characteristic | Effluent limitations  |  |
|-------------------------|---|--|
|                         | Average of daily values for 30 consecutive days shall not exceed— |  |
|                         | Metric units (kilograms per 1,000 kg of product)                  |  |
| TSS.....                | 1.5   |  |
| Fluoride.....           | .4  |  |
| Ammonia (as N).....     | .01   |  |
| Aluminum.....           | 1.0   |  |
| Copper.....             | .003  |  |
| COD.....                | 1.0   |  |
| pH.....                 | Within the range of 7.5 to 9.0.                                   |  |
|                         | English units (pounds per 1,000 lb of product)                    |  |
| TSS.....                | 1.5   |  |
| Fluoride.....           | .4  |  |
| Ammonia (as N).....     | .01   |  |
| Aluminum.....           | 1.0   |  |
| Copper.....             | .003  |  |
| COD.....                | 1.0   |  |
| pH.....                 | Within the range of 7.5 to 9.0.                                   |  |

§ 421.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be

no discharge of process waste water pollutants to navigable waters.

§ 421.34 [Reserved]

§ 421.35 Standards of performance for new sources.

(a) The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

(b) Application of the factors listed in section 306(b) of the Act may require variation from the standard of performance set forth in this section for any point source subject to such standard of performance and which uses chlorine in the magnesium removal process ("demagging" process). If variation is determined to be necessary for any such source, the discharge of process waste water pollutants shall be allowed from the magnesium removal process only, and such source shall be subject to effluent limitations no less stringent than those required by paragraph (c), § 421.32.

§ 421.36 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the secondary aluminum smelting subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in part 128 of this chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in § 421.35: *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

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United States Court of Appeals  
FOR THE SECOND CIRCUIT

No.

AFFIDAVIT OF SERVICE BY MAIL

John White

\_\_\_\_\_, being duly sworn, deposes and says, that deponent is not a party to the action, is over 18 years of age and resides at 297 Sumpter Street

Brooklyn, New York 11233

That on the 26th day of June 1974, deponent served the within Appendix for Petitioner

upon Robert C. Barnard, Esq. - 1250 Connecticut Avenue N.W.  
Washington, D. C. 20036

& Wallace H. Johnson, Dept. of Justice - Washington, D.C. 20530

Attorney(s) for the Petitioner in the action, the address designated by said attorney(s) for the purpose by depositing a true copy of same enclosed in a postpaid properly addressed wrapper, in a post office official depository under the exclusive care and custody of the United States Post Office department within the State of New York.

Sworn to before me,

*John White*

This

26<sup>th</sup>

day of

*June*

1974

*William A. McKague*

WILLIAM A. MCKAGNEY  
Notary Public, State of New York  
No. 41-7846700